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VOLUME XII.

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The New Mexico Medical Journal

PUBLISHED MONTHLY BY COUNCIL OF THE NEW MEXICO MEDICAL SOCIETY

R. E. McBRIDE, M. D., MANAGING EDITOR - - - Las Cruces, New Mexico

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All communications to this publication must be made to it exclusively. It will be more satisfactory to all concerned if contributions are typewritten.

Secretaries of county societies are earnestly requested to report their meetings, including the subject matter of the papers presented and the substance of the discussions.

Marked copies of local newspapers, or clippings containing matters of interest to the profession will be gratefully acknowledged. The name of the sender should be given.

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The New Mexico Medical Journal

Volume XII

MAY, 1914

No. 2

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WITH THE MANAGING EDITOR.

The managing Editor has, from time to time, called the attention of the readers of this Journal and particularly the attention of the members of the New Mexico Medical Society to the necessity of mentioning the Journal when writing to advertisers. At the risk of being a bore to some of the readers we feel that we cannot impress too strongly upon our members the value of such reference in writing to those who patronize our Journal, for, as the Kentucky Medical Journal remarks, "these advertisers really publish the Journal." The more advertising we can obtain, the better and larger the Journal we shall be able to give you and the more you patronize the advertiser who patronizes us, giving the Journal credit, the more advertising we shall be able to command, and, as says the Journal of the Medical Society of New Jersey, "only ethical advertisements of reputable firms are admitted in our Journal so that by patronizing our advertisers we are not only helping our Journal but also serving ourselves

and our patients' best interests in securing reliable goods."

The New Mexico Medical Journal stands for ethical medicine. We must stand or fall on this principle. No advertisement is admitted that is not ethical and in the matter of proprietary preparations, that do not bear the stamp of approval of the Council on Pharmacy of the American Medical Association, and in this course we know we have the moral support of the profession in New Mexico. But the moral support of the profession never did and never will publish a Journal. We need and must have the active support of the members all the time. This active support can be manifested in a variety of ways. One of these is the patronizing of our advertisers; another is the securing of local advertisements for the Journal; another is the insisting that the secretary of YOUR county medical society report the proceedings of YOUR county society meetings; another is the reporting of your interesting clinical cases and so on.

Recently the Managing Editor wrote to a number of the members of the New Medical Society urging them to furnish their papers and report their interesting cases. Out of a large number of letters written (we prefer not to say how many) three replies were received. Two of these replies promised

papers and a third sent us a most interesting report of a case. In other words results were really obtained from JUST ONE MEMBER. This makes us wonder if our members really realize that the Journal needs them—needs them all the time. We know that in New Mexico there is as capable a medical profession as can be found in any state in the Union and we know that there are the usual number of interesting cases, but how few of these cases ever find their record in the New Mexico Medical Journal.

Not long go one of the members of the State Society made the obversation to the Managing Editor that there was room for improvement in the New Mexico Medical Journal. We admitted it without an argument. But who is going to improve it? The Managing Editor alone? Nay, not so. The Managing Editor can only do a part; the members must rally to the support of the Journal's reading pages as well as to the support of its advertising pages.

Some may say they are too busy,—the Buffalo Medical Journal recently published a list of over a hundred and fifty titles of articles written by the lamented Roswell Park. He too was a busy man, yet he found time to enrich medical literature, and while we may not all be Roswell Parks, we can find time to record the interesting and instructive case for the benefit of the profession and humanity. The busiest man is really the man who usually commands the best clinical material.

Stir yourself, then, members and tell of your successes and failures through the columns of YOUR Journal.

"We are not alone in our misery, if misery it be called, when it comes to running short of original articles for publication. The editor of the Michigan Medical Journal is in trouble too, if we are to judge by the following:

"As this edition goes to press there remain in our drawer, which we utilize for filing original articles, but two papers for publication in our May number. Hence we are flying a signal of distress.

"The Journal is running on an average of ten original articles in each issue. This means one hundred and twenty original articles a year. Surely our State, containing 4,000 physicians, is capable of supplying its official publication with one hundred and twenty high grade, instructive, practical and valuable original articles, and not cause your editor to go begging for copy. We are confident that you will immediately respond to this call and so obviate our sending out our May number with but two original articles."

When our May issue goes to press, this issue if you please, not a single original remains in our drawer for publication. Hence, we too, find it necessary to fly the signal of distress and YOUR editor IS begging for copy for we cannot allow the June issue to go to press without a single original article.

PEST HOUSES.

The subject of small-pox is always pertinent in this region, where the disease is endemic and so common. History teems with horrible epidemics of this scourge and it is largely on this account, as well as the fact that the lesions are principally on the skin, where they can be seen, and the disfig-

urement frequently left, that the laity has such a repugnance to it. It is in every sense of the word, a "pest." The mortality does not account for the term, as the frequency and mortality are very slight to what they were before the days of vaccination. If proper prophylactic measures could be enforced the disease could be easily eliminated.

Is the infectiousness of small-pox for those who have not had it, or for the unvaccinated greater than in the case of the exanthemata for children who have not had them? Probably it is slightly or moderately, but not greatly. There is not one-hundredth the danger of a fairly recently vaccinated person contracting small-pox than there is of a child taking whooping-cough or scarlet fever. Among the whites of this country the disease does not kill anything like as many people as the exanthemata, and its ravages are nothing to those of typhoid fever, lobar pneumonia or tuberculosis. As far as being a "pest" is concerned, variola is not in the same class with the above mentioned diseases.

In all infectious diseases but this the patient is allowed to be isolated, treated and nursed in his home, when there are proper facilities for doing it, but in the case of small-pox he is forced into a "pest house," where too frequently he does not receive either the proper medical attention or nursing. Most "pest houses" are not the well-equipped, modern hospitals for the treatment of the infectious disease, small-pox, that they should be. Many of these institutions are under the management of non-medical men, and are not run in accordance with proper hygienic rules.

Too often individuals who have been exposed to the disease have been forced into "pest houses" to pass the period of incubation and have been thrown in daily contact with convalescents, and are placed in much more danger from that source than from the original exposure. They are even forced from their homes on this account, when isolation could be carried out there with safety to others. The efficacy of disinfection of rooms in which small-pox patients have been has been proved beyond the shadow of a doubt.

People have a horror of the term "pest house," and justly so. It is a relic of the dark ages and should be dropped. It is incorrect in both words. "Pest" should not be more applicable to small-pox than to other scourges mentioned above, and "house" is certainly not the proper word to use for a hospital for the treatment of infectious diseases. The correct term is "small-pox hospital," and we respectfully suggest to all administrative and health officers that they substitute this for that obsolete blight, "pest house." P.

DISEASE DANGERS OF MEXICAN INVASION

The possibility of war with Mexico has been before our people for some time; if a general war occurs it means invasion of Mexican territory. The question naturally arises, What are the disease dangers which will confront American soldiers in Mexico? It has long since passed into a truism that in war, disease kills more than bullets. Will this prove true in a Mexican war? The increased knowledge of preventive medicine since the Spanish-American War has encour-

aged the belief that the mortality from disease will be materially lessened. To what extent is this belief justified, and what are the diseases from which our troops may suffer in a tropical country and from which they should be protected? These questions, which have probably been in the minds of many of our people during the last few weeks, are answered in a recent issue of *The Journal of the American Medical Association*.

Aside from the ordinary diseases which might prevail among any body of two or three hundred thousand men, there are certain diseases to which soldiers in camp and in the field are particularly exposed. These are especially small-pox, typhoid fever and dysentery. Small-pox may be disregarded, as any troops sent into Mexico will be immune from this disease through vaccination. Typhoid fever, in the past, has been the awful scourge of military camps. The appalling experience of the Spanish-American War has not been forgotten by our people; the record of twenty thousand cases of typhoid in the army in six months produced an impression which can never be obliterated. But since then progress in preventive medicine has been made, and vaccination against typhoid is a result. Antityphoid inoculation has been subject to rigorous tests on a large scale in the army during the past two years, with the result that in 1913, out of ninety thousand men at home and abroad, there was only a single case of typhoid fever among the inoculated, a record that can well be regarded as a triumph for preventive medicine. It is believed that the army surgeon now has

a weapon against typhoid that will make the next war unique in this regard. Every officer and man now in the United States army and navy is practically safe against this disease, and each recruit will be inoculated at the time he is sworn into the service. The next campaign in which the United States army will participate will be a practical test of typhoid prophylaxis on a large scale. That it will prove the value of inoculation and will relieve warfare of one of its most horrible accompaniments there is little doubt.

The dysenteries can be divided into those due to bacterial invasion and those caused by ptomaines in foods. While the water and food of the soldiers will be more carefully guarded than ever before, a certain amount of intestinal disorder will be inevitable. It can safely be predicted, however, that the nation will be spared a repetition of the "embalmed-beef" scandals of 1898. The work of the general staff of the army, the development of departmental officers of high efficiency and the enormous amount of publicity on pure food that has taken place in the last decade, ought to insure the American soldiers a wholesome food-supply. After the experience and warning of the past, the American people will hold to a strict accountability any one responsible for supplying the army with food materials which are not in every way up to the standard.

Of the diseases peculiar to tropical and semicivilized countries, yellow fever, malaria, bubonic plague, cholera and typhus must be considered. The brilliant work of the last fifteen years

in demonstrating the transmission of malaria and yellow fever by the mosquito has put our army and navy surgeons and sanitarians in possession of all the knowledge needed to control these diseases. The convincing demonstration of the practicability of their control given by General Gorgas in the Canal Zone has proved that malaria and yellow fever can be controlled completely in settled communities. Where men are living in fixed habitations, which can be screened and where all possible breeding-places of mosquitoes for a necessary distance can be destroyed, the complete eradication of these two diseases is possible. It remains to be seen, however, what methods can be developed for preventing mosquito infection among soldiers in the field. Mosquito-nets can, of course, be carried, and patients in the field and hospitals can be protected as well as troops in barracks or permanent quarters. But how about troops in the field, scouting parties, pickets and outposts? Undoubtedly American ingenuity will devise methods to meet the needs, and the dangers of these two diseases will be greatly diminished, although occasional cases may be unavoidable. Epidemics, however, will be practically impossible.

Cholera, being borne through water, milk, flies or human carriers, can be prevented only through cleanliness and by maintaining the purity of water-supplies. It is not today a particularly dangerous possibility, as it can enter Mexico only by way of the seaports, most of which, in case of a campaign, would soon be in the hands of the navy and under quarantine regulations. Regarding typhus fever, it is a strange coincidence that the work of Ricketts,

by which he demonstrated, at the loss of his own life, that the body-louse is the carrier of this disease, was done at Mexico City, where he went to carry on his investigations on account of the prevalence of typhus among the lower-class Mexicans. This disease, which in past centuries caused enormous loss of life in camps and on shipboard, is limited in its danger and can easily be prevented by avoiding dirty dwellings and contact with dirty individuals. There is as yet no known method of prevention except the avoidance of infection. It is probable that among any large number of soldiers in Mexico, a few cases of this disease will develop.

Bubonic plague is endemic in many of the near-by South American ports. It would probably be a constant danger in the Mexican seaports. Fortunately, it would be confined largely to the seaports and large towns. An army in the field, living in tents on the bare ground, would be practically safe from it. Probably one of the first measures inaugurated by our medical officers on taking possession of a Mexican seaport would be a campaign of rat extermination, as this animal has been shown to be responsible for plague propagation.

THE HEALTH OF THE PEOPLE.

The campaign for the education of the American people along the lines of preventive medicine still goes on. The American Medical Association has just issued a series of ten pamphlets on Conservation of Vision, six more are in the printer's hands and two more are in preparation. In addition to this series five bulletins or pamphlets have been issued on public health topics.

The titles to the pamphlets already issued are as follows:—

School-Children's Eyes.
Industrial and Household Accidents to the Eye.
Wearing Glasses.
Trachoma in Eastern Kentucky.
Auto-Intoxication and the Eye.
Eye-Strain.
Lenses and Refraction.
The Eye and Its Functions.
Care of the Eyes.
Death and Blindness from Wood Alcohol Poisoning.
Child Culture the Function of Organized Medicine.
The Municipal Regulation of the Milk Supply.

These pamphlets may be had by writing to the secretary of the Council on Health and Public Instruction of the American Medical Association, 535 North Dearborn Street, Chicago.

WE ARE OUR BROTHER'S KEEPER.

The knowledge that the criminal classes need to be defended against certain features of the penalty which society inflicts upon them for infractions of law is growing more and more in extent, as everyone realizes who has followed the efforts of prison reformers to enlist the sympathy of the public for their work. If added proof were needed, the indignation generally expressed when the warden of the Kansas State penitentiary promulgated the fact last week that one-third of the 817 convicts in the prison are suffering from tuberculosis contracted by working in the prison coal mine is sufficient evidence of a growing humanitarian movement to lighten the burdens of our fellowmen. Perhaps since the French Revolution, when our common

brotherhood first began to be dimly understood, this generation is doing more to uplift and to redeem than any previous one. Pessimists may point to our reckless disregard of life and limb in our pursuit of wealth; they may show that business is only another form of war, and that "war is hell," to quote General Sherman; they may point to our intolerance in religion and politics. Despite these facts, humanity is doing more to ameliorate the condition of the delinquents, the poor and the halt and the blind than at any period of its history. While much may be due to the feeling that an emotional outlet must be found for the stress of our industrial strife, and that mankind is prone to treat effects and not causes, yet in the process of the suns this effort to help and to uplift will bring its fruition. Perhaps it will not be amiss to suggest that to the medical profession more credit should be due for this movement than is usually accorded to it. But the profession is accustomed to labor in humanity's behalf without much reward.—(Cincinnati Medical News).

THE DESTROYER OF CONFIDENCE.

"See no evil, hear no evil, speak no evil," so runs the Confucian proverb; to this should be added the appearance of evil. What a man thinks is written on his face, betrayed by his attitude and told by the eyes, the hands and the feet. Words are quite as often the instrument of concealing thought as of giving it clear expression. But it needs no gypsy to read the mind as it plays upon the muscles of expression through the emotions. A man may

speak fine sentences that he does not mean, but his looks belie his words. And so a man's reputation may suffer more from a shoulder shrug, a sarcastic smile or mere silence, than from a slanderous tongue. This is the secret of how some men destroy confidence in others by their mere presence, though they say not a word.

Then there is the man who by his acts puts you in an evil light. He enters the consultation room like a hero coming to the rescue, he leaves the impression that he arrived just in time to prevent some dire calamity; his acts speak louder than words, and as a destroyer of confidence are a thousand times more potent.

Another means of destroying confidence is by the "joke," "It was so funny," Dr. X's mistake. Presumably no harm was intended in the telling, but in the end Dr. X has been laughed at, and when you once have laughed at a man's failings he never commands the same respect that he did before. When the nurse and family are laughing at you your prestige will not last long. Men learned in dispute have long known the power of ridicule. "Ridicule shall frequently prevail and cut the knot where graver reasons fail."

And finally we have the man who openly attempts to destroy confidence by seeing, hearing and speaking evil constantly. He does no harm, but he works in the open and gives you a chance to defend yourself. The public comes to know him at his true value, and as a destroyer of confidence he does not compare with the man whose actions speak louder than words.

The fault of destroying confidence has been condoned by the assertion

that the medical profession is overcrowded and that competition is so strenuous that one must push his way by fair means or foul. But the argument will not suffice, for the attempt to put competitors in an evil light is quite as common where clients are many as where they rarely disturb the struggler's solitude.

And what is the net outcome of it all? Loss of individual and professional prestige, for if we do not respect each other whence shall come the respect of the public?

We are all more or less guilty and perchance the writer is among the chief of sinners, but nevertheless the destroying of confidence is a wicked business that is leading us into much trouble and vexation. It is a matter that should receive more attention at the hands of the County Medical Society. —(G. W., in Bulletin of El Paso County, Texas, Medical Society.)

WHAT'S THE USE?

There isn't a location in the United States where a doctor can make his living but there's a doctor already there. There isn't a town that can support a dentist, lawyer, carpenter, blacksmith or any other craftsman, but has two or more competing for the work. There isn't a hamlet, but has a school, unless it's too poor to support a teacher. There isn't a community that can support a church, but has three, two of which receive outside aid. There isn't any place for dry-goods, groceries, clothing, or any other business that isn't overdone. Look at the drug-stores, and saloons, and clothes-cleaners, and tobacconists, and storage-houses; look at the unemployed labor-

ers! There are too many men in every branch of man's labor. Better have a war and thin them out.

Women? Of course there are too many women. Take up any newspaper, and see how many items you can find where two or more women claim or want one man. Try to find employment for any woman that will yield her support, and see! Find a household that does not shelter at least one superfluous woman, one that doesn't give a home to "Aunt Hannah." Yes, there are, surely, too many women.

The State can't build jails to hold all its criminals, asylums enough for its insane, hospitals for its sick, alms-houses for its poor, schools for its children.

Too many of everybody.

Brahmin and Buddhist went over this ground ages before the Galilean walked this earth, and they came to the conclusion that nothing was any use: that world and life in it were irretrievably bad and the best thing that could happen to anybody was to get out of it. Pessimism was the weighty chain with which the Brahmin shackled Media, and Buddha added to its weight. Yes, Gautama, who, dying, gave as his parting message to man the words that can not die, "Be kind to all that lives," he also found no heaven promising so much as Nirvana—nothingness.

Yet, the rich earth yields its increase to the tiller, and the rain falls, the sun shines, the birds sing, the seasons roll round, and winter's snows are stored away to afford moisture to the swelling grain, and the growing crops gladden the eye with their promise of plen-

ty. The children shout, laugh, and arouse the somnolent elders with their tumult. Girls and youths who have labored the long day fill the evening hours with song or saunter off in couples.

Now take any human vocation—our own will do—and survey it by itself. Some men have success, some become eminent, some merely hold their own, some fail.

Wherein, then, lies the difference? In work, every time! The man who works hardest succeeds best. I don't mean mere hand-work, or routine work, but work with hands directed by brains; well-considered plans, energetically followed out. That combination is a sure winner.

I've known lots of pessimists. One had been a great merchant, but failed. He lost his nerve, and never tried again. He could spot the weak links in a chain every time and show just why the scheme would fail. Other men with less brain-power took the chances and made good.

One of the most accomplished physicians was incurably pessimistic. Patients respected him, but went to other doctors. He wouldn't venture an opinion or give them any encouragement. Less scrupulous men promised everything, and they generally won out. If they didn't, they left among the family the feeling that the doctor had made a good fight, anyhow—and men like a fighter. My pessimistic friend had the abilities of a DaCosta, but—I'm not sure whether he is alive yet or not—I never hear of him.

Some traveler described this scene: On a steamer there was a bench on which sat ten men, exactly filling every

inch. A Turk came up, surveyed the seat, then turning his back he pushed his way to and onto the seat. At one end a man fell off. Then the Turk went on "scrouging" until another fell off; whereupon our Turk squatted squarely on the bench, cross-legged, and calmly began to smoke. Now, if that Turk had been a pessimist, he would have seen there was no room for him on the bench and stood up till somebody made place for him.

Mister Pessimist, you are the fellow who was crowded off that bench.

This is my treatment: I once sat down seriously to consider how I should have arranged this world had I been the creator. O, well, I should leave out sin, disease, and death; I should abolish greed, cruelty and selfishness. But I soon found that this scheme wouldn't work out. For, with every vice I destroyed I demolished also a virtue; for every difficulty removed, I took away an incentive to exertion. Life became monotonous, meaningless, unendurable — and the thought of this state going on endlessly became appalling. This glorious earth is planted full of the most enticing possibilities, waiting for somebody to discover and develop them.

We may not be Edisons or Madame Curies, but to each and every one of us comes the opportunity to do something worth while. But we can do it only by getting to work, never by sitting down and whining, "What's the use?" —(American Journal of Clinical Medicine.)

CROSS-EYES.

One of the most conspicuous and annoying conditions that may occur in the eyes of a young child is squint, or

what is commonly known as "cross-eyes." It occurs chiefly between the ages of 2 and 6 and comes on gradually at first, showing some slight turning inward in one eye, at times, until finally something occurs to precipitate a definite attack and the eye turns in to a greater or less degree and remains so. Frequently a convulsion or an attack of coughing, especially during whooping-cough or some like irritation to the general nervous system, brings on the attack, and is considered by the child's mother to be the cause. This is incorrect. When the eye is turned it will not look directly at the object at which the other eye is looking, and doubling of the vision is the result. This "doubled vision" is very annoying, as one may judge for himself by slightly pressing one eye out of position with the fingers. In order to escape this annoyance the child unconsciously stops using the eye that is turned in, and this, in time, leads to changes in the nerve tissues which makes the child's sight defective in that eye. Formerly many physicians advised parents to wait until the child grew older before having anything done to the eye, feeling that an operation was the only thing to relieve the condition, or that the child might "outgrow it." This, in the light of our present knowledge, is bad advice. By the time the child gets to be 8 or 10 years old the sight in the eye is defective from disuse, and cannot be restored, and this failure of vision has usually occurred even though the eye has straightened itself spontaneously. It is very important, therefore, not to allow the child to stop using the squinting or turning eye. It is not always necessary to operate. Usually glasses

have to be worn to stop the strain, and there are other forms of treatment which are many times effective. If these means fail and the eye continues to turn, an operation may have to be done to keep the eye straight and to save the sight in that eye. But not more than half, perhaps even less, will require operation. Fortunately treatment is much more judiciously given and often is more successful now than it used to be, and the present generation of children will probably not show so frequently the defects caused by neglected "cross-eyes."

THE CAUSE AND CONTROL OF CANCER.

It is frequently said that we do not know the cause of cancer. In one sense this is true. What it is that starts the growth of cancer in the body is, as yet, an inscrutable mystery. Years of experimentation and research have not solved this riddle and the disease still remains the foremost problem of medicine.

On the other hand we know much more than is commonly supposed about the "causes" of cancer, if by "causes" we mean "conditioning factors." We know, in some cases almost to a certainty, the combinations of circumstances which result in this disease. A noted authority recently undertook to write a "prescription for cancer." He said that he could name certain states of the body, which, if they occurred together, would be likely to be followed by cancer; for instance, syphilitic subjects with bad teeth, who were confirmed smokers, might reasonably be expected to develop cancer of the tongue. Irritation for a long period

in any part of the body may lead to the development of cancer.

While we do not know just why cancer cells set up a growth of their own outside of the law and order of the human body, we can nevertheless describe a great number of conditions under which they have been observed to do so. The influence of racial, local and personal habits on different organs, heredity, the evidence and nature of constitutional predisposition, the influence of chronic infection of wounds and other injuries, and many other factors may be profitably studied in connection with the development of cancer. Incidentally, this is one of the ways in which cancer research hospitals are of value.

It is not necessary to know the ultimate cause of cancer in order to control the death rate from it. We can remedy many of the conditions under which the disease develops by increasing the knowledge as to the facts about cancer. Campaigns of education have as their object the spreading of information about the disease, and pointing out the need of the earliest possible recognition of the symptoms in order that competent medical and surgical advice may be sought in time. The American Society for the Control of Cancer has recently been formed to encourage and direct this kind of educational activity in all parts of the country. The society plans to cooperate with all existing agencies engaged in studying the disease, and to publish in every city, town and village of the country the message of hope which lies in the early recognition and proper treatment of cancer.

MENTAL HEALING AS A COMMERCIAL ASSET

We live in an age of wonders and of progress. The conditions of yesterday are lost sight of in the amazing progress of today. So great have been the advances of scientific knowledge in the last fifty years that one is prepared for almost anything. Not only in the scientific world but in commercial matters as well is progress truly astonishing. Business enterprise today uses the worthless by-products and waste material of yesterday. The fact that the squeal of the pig is the only thing that goes to waste in the modern stockyards has long since passed into the realm of commonplace. Yet it remains for an accident insurance company to show systematically the financial value of the denial of human ills. The Preferred Accident Insurance Company of New York employs as an adjuster in Chicago a devotee of Christian Science. He is said to be a very valuable official on account of his ability to make the people insured in his company regard their injuries from a Christian Science point of view. Heretofore, the possibilities of a healer in any of the "mental science" cults have been restricted to "absent treatment" and "mental treatment," with the acceptance of such fees as the customs of the sect have prescribed. Thanks to the Preferred Accident Insurance Company of New York, a new and brilliant future is now open to the mental healer. He can be employed on a salary by accident insurance companies to convince the policyholders that they are not really hurt and consequently have no claim against the company. But why limit such beneficent activities to insurance companies? asks *The Jour-*

nal of the American Medical Association. Why cannot each railroad and street car company have a medical healer in its employ who can hasten to the scene of the accident and convince the victims that the unfortunate event was only a delusion of their mortal mind, and that nothing has really occurred to them? Nor can the development of this new and brilliant method be limited to commercial and industrial conditions. Our government is standing on the brink of war with Mexico. Why send surgeons with the battleships, or ambulances with the army? A sufficient corps of mental healers, sent out on the battlefield after each engagement, will convince each wounded soldier that the bullet which struck him was only a delusion and that has really happened. Bandages, dressings, anesthetics, instruments, hospitals, sanitary precautions and regulations are all useless. If the teachings of the "mental healer" are to be accepted, we have only to convince ourselves that everything painful, dangerous or unpleasant to ourselves or others is non-existent, in order to become prosperous, individually and nationally.

Original Articles

REPORT OF A CONTAGION AMONG THE CANON CITO NAVAJO INDIANS

DR. C. L. DAY.
Albuquerque, N. M.

(Read before the Bernalillo County Medical Society, March 18, 1914.)

Sometime early in January or the later part of December, an old Navajo woman, who had a reputation as a

traveler among the Pueblo Indians and Mexicans, as well as among the people of her own tribe, visited Mt. Taylor for the purpose of gathering pinon nuts. The second day of her stay on the mountain she was taken with a violent illness. The most prominent symptom was a severe diarrhoea, which was attributed to eating corn meal mush and white bread; both the corn meal and the bread, ready baked, had been purchased from an Isleta Indian just before the trip. As the old woman's condition continued to become more serious, it was thought best to take her home, which was done. At her home, the usual Navajo hogan, a circular structure about ten feet in diameter, made of logs, stones, and adobe with an opening for entrance usually covered with a blanket or wagon sheet, and a hole in the roof to let out the smoke of a wood fire built on the ground, in the center of the room, this old woman's daughter acted as nurse.

As the disease progressed a very disagreeable odor was noticed, which seemed to fasten itself on the daughter's mind particularly.

The old woman died about the 15th of January and soon after the daughter was taken sick with symptoms similar to those of her mother but attributing her illness to the odor which came from her mother before death—this fact or fancy seemed to be upheld because of the vomited matter, which seemed to have the same peculiar odor. The young woman became progressively worse and developed into a semi-comatose, delirious condition, so on January 30, I was sent for and saw her on the morning of January 31.

I found the patient to be a woman about forty years of age, lying on the

ground in a state of muttering delirium, with occasional slight convulsive movements of her whole body. Temperature 104; pulse, weak; about 130 at the wrist. The tongue was black, dry, and fissured. The teeth were covered with clotted blood, which I was told had been expectorated from time to time. The respiration was not rapid, as I remember, 22. The face had an anxious, livid look, but without any sign of eruption. I was very much surprised on examining the chest to find it covered with a peculiar dark eruption, which was very slightly raised and macular. In places there was a sort of mottled appearance to the skin. These spots were as numerous on the abdomen as on the chest but were more prominent under the pendulous mammae. There were a few moist-rales in the chest. The spleen showed enlargement on percussion.

The people reported the urine to be scanty and dark red. The bowel symptoms and the extreme prostration led me to diagnose this case as typhoid fever. My prognosis was very unfavorable. I instructed the Indians to be careful of fomites and perhaps unwisely, considering my diagnosis. I gave the patient two table-spoons of castor oil and instructed them to give the patient ten grains of utropine in solution every four hours or three times a day unless the urinary symptoms seemed to be disturbed by this medicine. This last was given with a faint idea that I might be dealing with a case of epidemic spinal meningitis. However, I left for home expecting that my patient was nearly through with life.

I heard nothing more from this settlement until March 2nd, when a letter

from there informed me that my patient of the 31st of January had recovered but that there was an epidemic of this disease. That the sick woman's husband had died and that nine people were ill in various stages of the disease.

March 5th I visited the camp and found conditions as reported. After my calling their attention to the eruption on the previous case, the Indians had observed this symptom and were able to report that it never appeared on exposed portions of the body, such as the face, hands or feet, though it was sometimes on the legs and arms. The man who died had the most extensive eruptions of all and those who had prepared the body for the tomb reported no change in the eruption after death. All patients who had been sick more than five days had the eruption at that time, except those who had recovered. One woman who had recently passed the crisis showed traces of the rash under her mammae.

The fever seemed to fall by crisis, usually on the 17th to 20th day. Its invasion was abrupt. The crisis was followed by more or less desquamation, particularly on the plantar and palmar surfaces. Children ran a shorter and milder course than adults but exhibited the same eruption, even nursing infants. All cases were accompanied with more or less delirium and extreme hyperesthesia of the skin. There have been twenty-four cases in the settlement, all in related families, of which thirteen have recovered, three have died and eight are now sick. The last death was a child five years of age in which the disease was complicated with whooping cough. I did not have facilities for bacteriological or blood

examination and specimens of the urine could not be secured.

I have excluded my first diagnosis of typhoid fever by history of abrupt invasion, ending the fever by crisis. Rash differing from the rose spots and appearing in all cases at times on the extremities. Also the appearance of the rash is earlier than in typhoid. From cerebro spinal meningitis by the eruption being more uniform. Absence of Kernig's sign, which I failed to find in any cases. Milder attacks among children and a quicker convalescence. However, I do believe if there is any question of my diagnosis this disease would be the most probable.

Measles would be excluded by the rash first appearing on the chest and abdomen and never on the face. Absence of Koplick's spots, which I failed to find; also the bowel symptoms were more prominent than respiratory.

Rocky mountain fever is similar except that the rash first appears on the wrist, in this disease, also appears on the forehead and lastly on the abdomen. This disease is seldom seen except in the Bitter Root Valley.

Scarlet fever has a far different eruption, and is more severe in children than in adults. Also sore throat is a prominent symptom.

This seems to be too severe a disease to be diagnosed as German measles. The rash of rubeola appears on the face.

My diagnosis is typhus fever. Anders says the eruption appears from the third to the fifth day without a decline in temperature, which I noted in all my cases.

The nervous symptoms were also quite characteristically described by the same author, who mentions the crisis,

the vomited blood, the peculiar odor which is likened to the smell of the urine of mice.

Furthermore, the studies of Rickett and others, have shown that this disease is transmitted by the louse. These people have plenty of vermin. It is believed to be endemic in Old Mexico, perhaps the first case became infected from a Mexican camp along the railroad.

I claim to have done little, if anything, toward curing this disease. Those who have recovered have done so because of its self-limiting character. I am trying to stop its spread. We now have twenty-seven people under strict quarantine with a guard to watch. The whole settlement is being closely guarded by our Indian Police and any places outside of quarantine, where sickness may break out will be looked after and reported to me. A campaign against the louse has been started. Twenty-five gallons of coal oil was shipped today for this purpose, to be mixed with lard and oil and applied where needed, but we may have been too slow.

March 8th one of the Indians now sick with this disease, stayed in a suburb of Albuquerque. His coming here was against our instructions and before we had authority from Washington to have an extra guard; he came for food for those sick but I trust he did not leave any infection behind him.

The only observations which I thus far made that are not uniformly recorded in the various text-books on typhus fever are that the eruption has not appeared on exposed portions of the body in my cases. Hughs and Anders are the only ones I have found mentioning this.

I have not been able to find any mention of typhus fever being milder with children than with adults, as has been my observation in uncomplicated cases.

Considering the number exposed I do not think the spread of infection has been rapid. Of course, this depends on the vermin.

TREATMENT OF PYOSALPINX.

W. R. LOVELACE, M. D.,
Albuquerque, N. M.

(Read before the 32nd Annual Meeting of the New Mexico Medical Society, Albuquerque, New Mexico, Oct. 2nd-4th, 1913.)

An intelligent and satisfactory treatment of pyosalpinx demands a knowledge of the etiological factors and pathological processes which produce this condition.

In an analysis of reports of many thousands of pathologic examinations of tubal contents it has been proven that 62½ per cent are due to gonorrhœa, 16 per cent to incomplete abortion and the remaining 21½ per cent being of uncertain origin but probably due to the entrance into the tubes of other pathogenic organisms from other parts of the body.

The tubes vary from a cylindrical mass about the thickness of the little finger to a large fluctuating tumor four or five cm. in diameter and twice its normal length. The epithelial lining of the tubes in chronic cases is destroyed and ordinary granulation tissue takes its place.

That the acute cases of pyosalpinx are due to an ascending pyogenic process, or to an ascending infection seems without doubt. In the early cases we

have an acute salpingitis from which there is almost immediate extension of infection through the fimbriated extremity to the pelvic peritoneum, or in some instances to the pelvic cellular tissue. Nature then makes a strong effort to limit the infected processes by forming a retarding wall of peritoneal adhesions. Frequently this is accomplished by sealing of the fimbriae, or again by adhesions of the fimbriae to peritoneum, colon, ovary or uterus, the position of the infected tube determining the method of closure. It is unfortunate that in acute pyosalpinx we cannot, as in appendicitis, make an early diagnosis.

Cases do not usually present themselves until pelvic peritonitis is already well advanced, because as a rule it is not until we have a pelvic peritonitis that we have decisive symptoms. Therefore in the treatment of acute pyosalpinx we must always bear in mind that there is present a peritonitis and if nature is left to herself the tubal infection will be promptly and effectually walled off; and that so far as the immediate safety of our patient is concerned we have only a localized peritonitis to combat.

An operation upon an infected or an acute pyosalpinx with peritonitis present—and peritonitis is always present when there are enough symptoms to justify operation—means an almost certain dissemination of infection throughout the patient which lessens her chances for life by at least 20 per cent. Too much stress cannot be laid on the fact that the treatment of acute cases is non-operative. Nature should be assisted and every effort made to carry the case through to a mild or chronic stage, when operation may be

performed with a minimum amount of danger and a greater certainty of perfect cure.

The treatment of acute pyosalpinx, is the treatment of the accompanying peritonitis, namely, hot turpentine stapes, or ice coil to the abdomen. Fowler's position and saline solution per rectum, by Murphy's method of proctoclysis. In these pelvic cases I have gotten good results from hot anti-septic douches and boro-glycerid tampons in combination with ichthyoil.

The treatment of chronic pyosalpinx is surgical, requiring attention as soon as possible. In doing a salpingectomy you may select either the vaginal or abdominal route. I prefer the abdominal route in all but very select cases; this gives you a better opportunity for making a thorough examination of the pelvic region and is easier done. Operating for pyosalpinx is in a large measure a question of dealing with adhesions to pelvic wall, omentum, bowel, bladder and rectum, and in this work the eye as well as the hand should be utilized.

Many times adhesions are found so dense as to be impossible of separation by the finger. It is in such cases, when working in the dark through the vagina that serious and oftentimes fatal rupture of the bowels occurs. When, however, the uterus and adnexa are freely movable, when it is certain that the uterus can be turned down through an anterior vaginal incision, and when there is a certainty the adhesions are fine and of small movement, then the vaginal operation may be adopted.

Care in removing tubes without rupture is an important factor. "To rapidly pack off the pelvis, to quickly dig out an adherent tube, regardless of rup-

ture; to depend upon the packs and upon dry sponging and upon the absorbing power of peritoneum to care for the spilled pus may offer a fine operative gallery play, but often makes work for the undertaker."

It is certain that if a septic tube is removed without rupture, if no pus is spilled, if bowel or bladder be not torn, the patient has a maximum chance for recovery. It is true in a majority of chronic tubes the pus is sterile, and may be spilled upon peritoneum with impunity.

But how can we tell absolutely at the time of operation whether a tube is sterile or infective? It is certainly best to regard every pus tube as dangerous, and in removing it exercise every care to avoid rupture.

The question of drainage of the pelvis after operation for pyosalpinx has received wide discussion. Many good operators advocate drainage, and many others equally as good bitterly oppose it. We should not go to either extreme. There is a sane middle ground from which we may decide for or against drainage according to the needs of the individual case.

If infected pus has been spilled, or if infection is spreading, no great reliance can be placed upon any form of drainage, gauze, glass rubber or cigarette, to carry away the infection. It seems doubtful whether drainage has more than a purely local action, certainly not after twenty-four hours since there is almost immediate walling off of the drain and drainage tract by adhesive walls.

In doing a salpingectomy, a median incision is made, relieving all adhesions by a blunt instrument or finger. A thorough exploration of the pelvis is

made, then the patient is put in the Trendelenberg position, tube located and brought as near the opening as possible without making too great a tension on surrounding tissue. After the adhesions are relieved the mesosalpinx is held by forceps and the tube is dissected from the broad ligament, the isthmus portion of the tube is removed from the uterus by a V shape incision, the remaining portion of the tube is thoroughly cauterized.

All bleeding points are carefully ligated and the bed of the tube is covered with peritoneum and sutured with a continuous catgut suture. In case there should be considerable oozing I have gotten good results by leaving about 500 cc. of normal saline solution in abdominal cavity.

SURGERY UNDER DIFFICULTIES.

J. G. HOLMES, M. D., . . .
Alamogordo, N. M.

A physician is sometimes confronted with a very serious case which apparently is beyond hope of recovery but which surprises him and others by showing unusual vitality and taking another lease on life. I wish to present such a case.

The patient to whom I refer, A——M——, was a Mexican boy aged about 17 years. He was of the poorer class. His father had died about six months previously from tuberculosis. His mother was in poor health. They lived in a two roomed adobe which had no screens at the doors or windows.

On July 19, 1912, I was called late one evening to see the boy who said he had been sick about ten days with

pains in his stomach. Examination showed his temperature to be 100, pulse 80, and his abdomen rigid with a small tumor mass in the right inguinal region. I diagnosed the case as possible appendicitis with pus formation. Bismuth was prescribed and on seeing him the next day he was much better. Pulse 76, temperature normal, and the abdomen soft and the tumor gone. His bowels had moved freely. I doubted my previous diagnosis. However early the next morning he was a very sick boy. Every symptom of peritonitis from a ruptured pus cavity was present. Dr. Gilbert was called immediately in consultation and it was decided that an operation was the only thing that might save him. This was done early in the afternoon of the same day. His condition at this time was desperate. Pulse 130, temperature 104, respirations 40, with the abdomen greatly distended and rigid. Vomiting was constant.

The operation consisted of incisions about three inches in length on either side of the lower abdomen. Pus flowed from both openings. Drainage tubes were inserted and because of the patient's desperate condition nothing more was done and he was returned to bed and placed in the Fowler position. Constant irrigation of the abdomen with sterile water was kept up for six days by the aid of the drainage tubes. After the second day water drained into the intestine and caused his bowels to move very frequently. This ceased when the irrigation was stopped. A fecal fistula formed on the right side which gave considerable trouble for about three weeks. Pus pockets were formed all through the abdomen which would discharge at intervals.

No attempts were made to close the abdominal walls because of the need of free drainage. At the end of a month the patient was out of danger and in two months was able to walk. No distinct hernia followed the operation, though about six months after an abdominal belt was necessary because of the weakened walls.

About fifteen months after the first operation an abscess formed in the right inguinal region which pointed and discharged below Poupart's ligament and in the right gluteal region burrowing over the crest of the ileum. An operation was performed on Feb. 2, 1914, for the purpose of better drainage. The abscess healed readily and the patient has had no further trouble.

Seldom does such a desperate case recover even under the best surroundings. This patient could not afford a trained nurse. Surgical cleanliness was difficult. Being summer time the flies were a great menace. But while everything was apparently against the patient, due credit is to be given the relatives for their faithfulness and their efforts to follow instructions. The patient is now able to work and suffers no inconvenience except the lax abdominal walls.

THE BACILLUS BULGARICUS IN DIPHTHERIA—CLINICAL REPORT.

DR. G. WERLEY, El Paso, Texas.

My experience includes four cases. Case 1 was an American child aged 8 years. A thick, continuous, creamy membrane covered both tonsils and extended to the uvula. Klebs-Loeffler bacilli were found by Dr. W. W.

Waite. On account of a brother of this child having had a very severe urticaria and dyspnoea following a second dose of antitoxin, I hesitated to inject this case with serum. Having read the experiments of Nicholson and Hogan (Journal A. M. A. Feb. 14, 1914) with the lactic acid bacillus and sour milk as a means of clearing the throat of the diphtheria bacillus, I determined to give this child large doses of calomel and local treatment with the bacillus Bulgaricus. I accordingly inoculated a quart of fresh milk with Hynson & Westcott's tablets of the bacillus Bulgaricus and as soon as the milk was sour used this as a gargle, in the mean time using the tablets themselves every two hours. At the end of five days all membrane had disappeared. It was noticeable that the child was in excellent condition at the end of the treatment, and did not have glandular enlargement, anemia or neuritis as I have heretofore noted when attempting to treat diphtheria without antitoxin. Since this I have treated three Mexican children for diphtheria with calomel and the bacillus Bulgaricus in milk as a gargle and they have all recovered completely and promptly as did case 1, above reported. Of course antitoxin in conjunction with this treatment would give still better results.

Abstracts

The Phenolsulphonephthalein Test.

F. B. Block, Philadelphia (Journal A. M. A., April 25), says that the phenolsulphonephthalein test is now recognized as superior to any other test for kidney func-

tion and can be relied upon when the other laboratory tests might fail. He reports a case illustrating the fact. He also reports the results of the use of the test in about twenty cases admitted to the gynecologic ward of the University Hospital which had been sent in as good surgical risks and offers the following conclusions: "Although this series is entirely too small to serve as a basis for any definite conclusions, nevertheless, as far as it has gone it seems to indicate the following: 1. The effect of ether anesthesia on healthy kidneys is practically nil so far as reducing the excretory power of these organs is concerned. 2. Traces of albumin in the urine before operation should not give much concern, but clouds of albumin accompanied by casts should be considered seriously before the performance of elective operations. 3. The duration of anesthesia in any given case does not in itself signify the amount of injury which the kidneys will sustain. 4. The position of the patient on the table, the character of the operation and the administration of protoclysis have not shown any effect of the percentage of phenolsulphonephthalein excretion after as compared with that before operation. 5. In one-third of the cases there is an increased excretion after operation."

Inflammation of the Gall-Bladder.

The importance and time of surgery in inflammation of the gall-bladder is emphasized by J. Tyson, Philadelphia (Journal A. M. A., April 25), who reports three cases of cancer following this condition. The fulminating form often terminates in abscess and if unrecognized may terminate in perforation. Next to the typhoid bacillus the colon bacillus is a frequent cause. A result appreciated only recently is adhesions now recognized as a frequent cause

of pain in the right upper abdominal quadrant, formerly unrecognized. Other predisposing causes are: sedentary habits, lack of exercise, tight lacing, childbearing and abdominal tumors, which contribute to explain the four times greater frequency of the condition in women. The most important consequence on account of its frequency is gall-stones, and the relation of these to cancer is now recognized; hence the necessity of prompt operation. Other results of neglected cholelithiasis are hardly less serious, such as abscess of liver and biliary fistulas into various organs, including the veins, the intestine, the stomach, the bronchi and the external integument. Atrophy of the gall-bladder is not infrequent. Tyson believes that in doubtful cases exploratory operation is sometimes justified, the more so since other conditions may be discovered which would also require operative relief. He does not deny that cancer may precede gall-bladder inflammation, but there is as much reason to believe that they were consequences in the cases reported.

Dysmenorrhea.

Clelia Duel Mosher, Stanford University, Cal. (Journal A. M. A., April 25), says that menstruation should be studied just as are the other functions and when normal should cause no pain or disability. The functional dysmenorrhea observed is, she says, congestive in type and produced by: (1) the upright position (Moscati); (2) alteration of the normal type of respiration by disuse of the diaphragm and of the abdominal muscles; (3) the lack of general muscular development; (4) inactivity during the menstrual period; (5) psychic influences. Each of these causes is discussed. She shows how the upright position with the valveless vena cava causes uterine congestion which tends to become

exaggerated when the abdominal muscles are lax, when costal breathing is employed and by clothing, etc., which interferes with the action of the respiratory muscles. Mosher has corrected these conditions in many cases by the following method: "All tight clothing having been removed, the woman is placed on her back, on a level surface, in the horizontal position. The knees are flexed and the arms placed at the sides to secure relaxation of the abdominal muscles. One hand is allowed to rest on the abdominal wall without exerting any pressure to serve as an indicator of the amount of movement. The woman is then directed to see how high she can raise the hand by lifting the abdominal wall; then to see how far the hand will be lowered by the voluntary contraction of the abdominal muscles, the importance of the contraction being especially emphasized. This exercise is repeated ten times, night and morning, in a well-ventilated room, preferably while she is still in bed in her night-clothing. She is cautioned to avoid jerky movements and to strive for a smooth, rhythmical raising and lowering of the abdominal wall." The results have been that the pain has been lessened in many cases and wholly removed in a large number. The desirability of more activity is noticed in one of the cases reported; but she cautions against excess, especially in the athletics of college training. A hopeful mental condition is important, and it is unfortunate that pain or disability is so commonly expected. The definition of menstruation should be restated more accurately as Nature's effort to relieve the undue congestion of the uterus by the causes above mentioned. Mosher's opinion does not represent a supplemental wave of nutrition (Jacobi) but rather a waste of potential energy in the form of blood which might be used in productive work when not

required for the development of the embryo. Under normal conditions there should be no more women suffering from disorders of the generative organs than from disturbances of digestion, respiration or of the heart. At present, she says, all the evidence points to the menstrual hemorrhage as a secondary matter more or less fixed by the upright position, and it is unnecessary that it should be of long duration or large in amount.

Renal Diabetes.

S. Strouse and A. H. Beifeld, Chicago (Journal A. M. A., April 25), discuss the so-called renal diabetes, possibly traumatic in origin. The general conception that the kidney is practically passive in diabetes has been disputed and they notice the various statements of authors in regard to this matter. Richter, von Noorden and Weiland have pointed out that the development of albuminuria may be accompanied with decreased excretion of sugar and, they say, it must be assumed that a relation may exist between glycosuria and the kidney, independent of true metabolic disturbance. The term "renal diabetes" seems to be employed for a condition of glycosuria which has been associated with kidney disease and clinically differentiated from true diabetes by its independence of carbohydrate intake and its clinical course. In studying the cases in the literature one is struck with the many temporary derangements included under this head, and many of the cases cannot be taken as showing the existence of a separate disease. It has been shown, nevertheless, by Salomon that there exists a group of glycosurias even in youth that do not progress to diabetes mellitus. Lepine and Garrod have proposed that the term "renal diabetes" be dropped and the phrase of "glycosuria without hyperglycemia" adopted in

its stead. Many temporary derangements are classed as renal diabetes at present, and unless we restrict them to the condition defined in Lepine's and Garrod's definition we are not justified in recognizing a separate disease. Strouse and Beifeld go over the literature of the more thoroughly reported cases and give a full report of one of their own of a healthy young man in whose urine glucose was accidentally discovered during a life-insurance examination. About a year before he had had an injury to his head, but the connection of this to the condition is not clear. There were no symptoms of diabetes mellitus. The blood-sugar was normal and the excretion of dextrose was practically independent of the carbo-hydrate intake. Under conditions that would intensify the symptoms of true diabetes in a person of his age, 23, he continues in perfect health. The clinical course has not been at all like that of diabetes mellitus, but fully satisfies the diagnosis of renal diabetes or glycosuria without hyperglycemia. Tables of complete urinary analyses under various diets, including carbohydrates and excluding carbohydrates, are appended.

Gall-Stones.

After mentioning the difficulties of detecting gall-stones with the Roentgen ray, G. E. Pfahler, Philadelphia (Journal A. M. A., April 25), describes the technic employed by him to meet them and sums up his paper in the following: "1. Gall-stones can be shown only when they are composed of a substance of greater or less density than the surrounding tissues. This will usually mean that they must contain some lime-salts, though this quantity may be small. 2. My records show positive findings in 74 per cent, but I believe in general one can not count on more than

50 per cent being demonstrable. I believe that a negative diagnosis at present has no value. 3. It is possible that with the improved technic, when we find the gall-bladder small, and still find no stone, it may become of some value in negative diagnosis. 4. The estimation of the value of this method of diagnosis must be based only on the work of roentgenologists who have mastered a good technic, and who are thorough in their work. 6. Definite information will be obtained only by continued cooperation of the surgeon and the roentgenologist. 6. In the future I believe that we shall obtain valuable information concerning the liver and spleen by the roentgen method described."

Plantar Warts.

R. L. Sutton, Kansas City, Mo. (Journal A. M. A., April 25), says that while the subject of plantar warts has been carefully studied by several authors within recent years, the true nature of the condition is seldom recognized even today. For this reason he reports a case which is the most extensive he has ever seen and which he has studied microscopically. These cases are notoriously resistant to treatment, and recurrence frequently takes place after excision. Of all the methods tried he gives first place to Pusey's carbon dioxid snow, fulfuration second, and Roentgen treatment third. Before the snow or electric current is applied, the epidermal lids of the little tumors should be removed by a 10 per cent salicylic plaster. Roentgen treatment is especially applicable when there are numerous lesions, which frequently disappear as if by magic. In the case reported all three methods were used and the cure was apparently complete in three weeks.

Collargol Injections.

During the past few years the question as to the dangers of the Voeleker method of injecting collargol into the pelvis of the kidney has been much discussed and the fatalities that have occurred have excited considerable attention. D. N. Eisendrath, Chicago (Journal A. M. A., May 2), reports certain experiments by himself and E. W. Schnoor on dogs in which the conditions found in human beings have been closely imitated. In the two experiments reported, solutions of collargol were injected in dogs under high pressure. Death followed in one case in five minutes and in the other in thirty. Extensive and widely distributed collargol embolisms were found in the lungs, liver, spleen, gastric mucosa and kidneys. They believe that these experiments offer for the first time a logical explanation of the deaths in human beings. Full discussion of the subject is postponed until the complete report is made at the June meeting of the American Medical Association. The article is illustrated.

Argyria from Collargol.

A. M. Crispin, New York (Journal A. M. A., May 2), reports a case of a young woman supposedly suffering from jaundice which turned out to be a case of argyria following a course of collargol. A dose of 10 grains of hexamethylenamin given for a coryza caused a marked improvement in the patient's coloration and she was delighted with the result. The suggestion is made that if there is found another unfortunate person with dark bluish color from argyria, hexamethylenamin might be tried. Operation for other symptoms revealed a chronic appendicitis.

The Treatment of Infected Wounds.

Thomas J. Watkins, Chicago (Journal A. M. A., May 2, 1914), points out that pus in

wounds is a result, not a cause, and that recovery comes not because the pus disappears but because the bacteria are destroyed. He says that no wounds should become infected except when operation is performed during acute infections. All manipulation of the wound is avoided. No probing, packing or irrigation is used. He employs the following treatment: An infected abdominal wound is covered with a hot, moist, non-irritating gauze dressing, which is kept moist with boric acid or normal salt solution and is covered by some non-porous protective material to prevent evaporation. Heat is supplied by means of a hot-water bag. The dressing is frequently changed and treatment is continued until the wound assumes a healthy appearance. If separated, the edges of the wound are then drawn together with sterile adhesive plaster and a dry dressing applied. The moisture favors drainage by preventing the discharge from coagulating. The advantages, he asserts, are that the disturbance of the patients is slight; the wound is quickly repaired; strength of wound is unimpaired through absence of sloughing and danger of secondary contamination is minimized. The author has used this treatment successfully since 1907.

Quinin Poisoning.

Elizabeth C. Underhill, South Hadley, Mass. (Journal A. M. A., May 2), gives an account of a girl student, aged 20, who took with apparently suicidal intent the whole contents of a bottle of 100 2-grain quinin pills. There was a short stuporous period, with vomiting, followed by a short period of delirium, after which she became perfectly rational. The ordinary symptoms of tinnitus and fulness in the head were experienced but were not excessive. In a few hours, however, sight was lost

completely and the pupils were widely dilated. Under treatment with evacuants, bromids and morphin to produce sleep, etc., she began to improve and gradual improvement continued until recovery seemed complete. It is possible that some of the pills passed, or were ejected by vomiting. The case is reported on account of the amount taken.

New and Nonofficial Remedies.

Since publication of New and Nonofficial Remedies, 1914, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies:"

Scarlatina Strepto-Serobacterin, Mulford (Immunizing).—A sensitized scarlatina streptococcic vaccine, sold in packages containing three doses of killed sensitized streptococci. (The Council has at present no means for determining the identity and purity of serobacterins and these must therefore be used on the guarantee of the manufacturer, alone) (Jour. A. M. A., April 11, 1914, p. 1168).

Phenolphthalein-Agar.—Pheolphthalein-agar is agar-agar impregnated with phenolphthalein, 100 Gm. containing 3 Gm. of phenolphthalein. It has the properties of agar-agar augmented by those of phenolphthalein. The Reinschil Chemical Co., New York (Jour. A. M. A., April 11, 1914, p. 1168).

Causticks (Silver Nitrate 75 per cent).—Wooden sticks $1\frac{1}{2}$ inches long, tipped with a mixture of silver nitrate 75 per cent and potassium nitrate 25 per cent. Each stick is to be used but once. Antiseptic Supply Co., of New York.

Caustick Applicators (Silver Nitrate 75 per cent).—Wooden sticks $6\frac{1}{2}$ inches long, tipped with a mixture of silver nitrate 75

per cent and potassium nitrate 25 per cent. Each stick is to be used but once. Antiseptic Supply Co., New York.

Cupristicks (Copper Sulphate 60 per cent).—Wooden sticks 1½ inches long, tipped with a mixture of copper sulphate 60 per cent, alum 25 per cent and potassium nitrate 15 per cent. Each stick is to be used but once. Antiseptic Supply Co., New York.

Stypticks (Alum 75 per cent).—Wooden sticks 1½ inches long, tipped with a mixture of alum 75 per cent and potassium nitrate 25 per cent. Each stick is to be used but once. Antiseptic Supply Co., New York (Jour. A. M. A., April 25, p. 1328).

Propaganda for Reform.

Theobromin Sodium Salicylate Versus "Diuretin".—Theobromin sodium salicylate, now described in New and Nonofficial Remedies and sold by most pharmaceutical firms, was first introduced under the therapeutically suggestive name "Diuretin." While under its proper title it can be bought for 35 to 45 cents an ounce, the proprietary "Diuretin" costs \$1.75 an ounce. An examination in the A. M. A. Chemical Laboratory has demonstrated that the quality of the product as sold under its chemical name is equal to that sold as "Diuretin." In view of these findings physicians should learn to prescribe the drug by its chemical name (Jour. A. M. A., April 4, 1914, p. 1108).

Tonsiline. — Newspaper advertisements assert that Tonsiline is "A quick, safe, soothing, healing antiseptic cure for sore throat." From an analysis made in the A. M. A. Chemical Laboratory it appears that a preparation like Tonsiline will be obtained by mixing one ounce of tincture of ferric chlorid, one ounce alcohol, 280 grains potassium chlorate with sufficient water to make one pint. It contains drugs

whose use for the purpose for which Tonsiline is used are being abandoned. The objection to the indiscriminate use of Tonsiline, which represents a saturated solution of potassium chlorate, is evident. (Jour. A. M. A., April 4, 1914, p. 1109.)

Gomenol.—Gomenol is a volatile oil, which comes as a proprietary from France. The oil appears to be prepared from a plant closely related to that which yields oil of eajaput and the properties and therapeutic value of the two oils probably are about the same. Gomenol is sold under most extravagant claims (Jour. A. M. A., April 4, 1914, p. 1110).

The Value of Mineral Waters.—The unprejudiced physician who is seeking to avail himself of the best therapeutic aids which modern medical science affords, cannot help being baffled by the conflicting claims made by the crude balneotherapy of today. He sees numerous cases in which relief has unquestionably been obtained by patients who have visited one of the many springs in this country or Europe; but when he attempts to analyze the possibilities—including rest, change of diet and environment—and to determine some standard by which he may intelligently advise those who need his help, the result is a hopeless confusion of ridiculous claims. At present mineral water therapy is a hopeless confusion (Jour. A. M. A., April 4, 1914, p. 1097).

The Serum Treatment of Tetanus.—The great value of anti-tetanus serum as a preventive is unquestioned. As a specific cure the serum has fallen short of expectation; nevertheless, it has decreased the mortality from tetanus. Tetanus antitoxin acts only on the toxin not yet combined with the nerve cells. This emphasizes the early and liberal use of antitoxic serum largely by intraspinal introduction in order to neutralize the toxin that still is

free and on its way to the nerve-cells, the necessity of thorough cleansing of the wound to remove all source of continued intoxication, and of conserving the strength of the patient in the hope that the morbid process caused by the toxin already in the nerve-cells may be overcome (Jour. A. M. A., April 11, 1914, p. 1174).

Salvarsan Therapy. — Wechselmann holds that the cases of salvarsan fatalities from encephalitis hemorrhagica were due to uremia, resulting from the irritation of the kidneys, in most cases damaged by administration of mercury. On the basis of this theory he argues for a pure salvarsan therapy in place of the generally combined mercury and arsenic treatment. He warns that salvarsan should be administered only after due consideration of the dose indicated and of the determination of absence of contraindications. No one can dispute that nearly all the deaths from salvarsan have been caused by its indiscriminate use, either in the face of contraindications or too large or too frequent dosage (Jour. A. M. A., April 11, 1914, p. 1175).

Wine of Cardui.—Wine of Cardui has vogue among women who prefer to take their booze in the form of "patent medicines." It is sold by the Chattanooga Medicine Company. John A. Patten, reputed to be the chief owner, is prominent in the Methodist Episcopal Church organization. Wine of Cardui is advertised as a cure for all manner of female diseases and though containing 20 per cent of alcohol, women and girls are advised to use it indiscriminately. Examination in the A. M. A. Chemical Laboratory makes it probable that Wine of Cardui is a hydro-alcoholic extract of blessed thistle, containing a trace of valerian and that its medicinal properties are due principally to its alcoholic content—20.36 per cent absolute al-

cohol by volume having been found (Jour. A. M. A., April 11, 1914, p. 1186).

Urodonal, A French Proprietary.—Urodonal, which has been widely exploited in France, is said to contain lysidin, sidonal and hexamethylenamin along with other things and to have a uric acid solvent power thirty-seven times greater than that of lithia. As Urodonal is not to be found in New and Nonofficial Remedies, as the uric acid solvent powers of the three chief constituents are generally considered to be slight and as the solvent powers of lithium salts for uric acid are admitted to be practically nil, the extravagant claims for the new shot-gun proprietary do not inspire confidence (Jour. Mo. State Med. Assn., April, 1914).

Hyperol.—Hyperol is exploited by the Purdue Frederick Company as "A Utero-Ovarian Corrective and Tonic" and is asserted to be "Indicated in all functional diseases of women." It is claimed to contain hydrastin, aloin, iron salts, apiol and ergotin. A report of the Council on Pharmacy and Chemistry announces that Hyperol conflicts with the following rules of the Council: Rule 4, in that statements on the label and in the circular enclosed with the trade package advertise it to the public in the treatment of diseases; Rule 6, in that exaggerated and unwarranted claims are made for its therapeutic qualities; Rule 8, in that the name of this pharmaceutical mixture fails to disclose the potent constituents, and rule 10, in that it is unscientific. The mixture is as unscientific as it is unnecessary. It cannot be adapted to any individual case; when ergot is indicated, apiol would naturally be contra-indicated; if aloes is appropriate, hydrastis may defeat the object sought. It is unnecessary because no intelligent physician would prescribe such a combination

of drugs to be given in any case (Jour. A. M. A., April 18, 1914, p. 1271).

Friedmann Vaccine.—Referring to the exploitation of Friedmann's vaccine by ex-mayor Rose of Milwaukee, the Southern Medical Journal suggests that "Mr. Rose will be remembered by Alabama physicians as the apostle from the city made famous by certain brews of beer who a few years ago came into our state to instruct from the public platform our people regarding the health-giving properties of alcoholic beverages. He is probably prompted by the same philanthropic impulses when he attempts to inform physicians and the public of the 'miraculous results' of the serum that made Friedmann famous as well as rich." (Jour. A. M. A., April 18, 1914, p. 1272).

Friedmann and the Newspapers.—The officers of the Society of German Sanatorium Physicians protest against New York newspaper accounts which make it appear that their society had feasted Friedmann and endorsed his cure. Those who, incidental to a meeting of the society, inspected the Friedmann Institute were of the opinion that the cases under observation had been badly observed and as a whole could not be considered as successes or cures (Jour. A. M. A., April 18, 1914, p. 1273).

Pearl La Sage Complexion Treatment.—Pearl La Sage, Chicago, sells a beauty treatment by mail which is claimed "heals, soothes, cleanses, softens and beautifies the skin" and removes all kinds of blemishes. The treatment consists of tablets, capsules and laxative pills. The contents of the capsules and the tablets are to be dissolved in water and splashed on the face, one at night and the other in the morning. Examination in the A. M. A. Chemical Laboratory showed the capsules and the tablets to contain as essential con-

stituents, phenolphthalein, borax and sodium carbonate. The pills appeared to contain cascara or some similar drug and a little alkaloid, probably strychnine (Jour. A. M. A., April 25, 1914, p. 1345).

The Hypophosphite Fallacy.—The hypophosphites were introduced by Dr. Churchill as a specific remedy for consumption on the theory, since proven incorrect, that phthisis was due to a lack of oxygen in the tissues. On the supposition that hypophosphites were oxidized in the body, he presumed them to be a source of energy for the nervous system. Not only does the evidence indicate that in consumption there is an increase of oxidation, but there is no evidence that phosphorus acts as an energizer of oxidation and further, there is no proof that the hypophosphites enter into general metabolism. Not only is there no evidence of the utility of hypophosphites but it has long ago been demonstrated that they are excreted unchanged. While the discredited hypophosphite theory is no longer contained in text-books, the fallacy is kept alive by proprietary interests, and physicians who depend for their therapeutics on the "literature" of proprietary concerns, still employ the hypophosphites. (Jour. A. M. A., April 25, 1914, p. 1346).

Duket's Consumption Cure.—The backers of the Chicago exploitation of the Duket consumption "cure" now admit that the treatment is without merit, that it is vastly inferior to approved systems of treatment of pulmonary tuberculosis and that the treatment may lead to albuminuria. While the "cure" was given wide publicity through the newspapers, the public has not been informed of the unfavorable findings. (Jour. A. M. A., April 25, 1914, p. 1347).

Radioactive Waters.—Waters whose radioactivity is due, not to radium itself, but to radium emanations will quickly lose their

activity. As most radioactive waters do owe their activity to radium emanations, they must be used at the springs. *Jour. A. M. A.*, April 25, 1914, p. 1348).

Since publication of *New and Nonofficial Remedies*, 1914, the following articles have been accepted for inclusion with "N. N. R." Those accepted during the current month are made prominent by the use of capitals.

H. M. Alexander and Co.: NORMAL HORSE SERUM; Typhoid Vaccine, Immunizing.

Antiseptic Supply Co.: CAUSTICKS, CAUSTICK APPLICATORS; CUPRIC-STICKS; STYPSYSTICKS.

B. B. Culture Laboratory: B. B. Culture.

Farbwurke Hoechst Co.: Amphotropin; EREPTON.

Fairchild Bros. and Foster: Trypsin.

Hoffmann-La Roche Chemical Works: Thiocol; Syrup Thiocol, Roche; THIOCOL TABLETS.

Hynson, Westcott and Co.: Phenolsulphonephthalein, H. W. and Co.; Phenolsulphonephthalein Ampules, H. W. and Co.

Merek and Co.: Cerolin.

H. K. Mulford Co.: ACNE SEROBACTERIN: Anti-Anthrax Serum, Mulford; Antistreptococcus Serum Scarlatina, Mulford; COLI SERABACTERIN; Disinfectant Krelos, Mulford; NEISSER SEROBACTERIN; PNEUMO SEROBACTERIN; Salicylos; SCARLATINA STREPTO SEROBACTERIN; Staphylo - Serobacterin; STAPHYLO ACNE SEROBACTERIN; Strepto-Serobacterin; Typho-Serobacterin.

Riedel and Co.: NEW BORNYVAL.

Reinschid Chemical Co.: PHENOL-PHTHALEIN AGAR.

E. R. Squibb and Sons: SODIUM BIPHOSPHATE, SQUIBB; Tetanus Antitoxin, Squibb.

Aseptic Chemical Co.: Freemann's Russian Mineral Oil: Having been found to comply in all respects with the requirements of the U. S. Pharmacopoeia for liquid petrolatum and not being in conflict with the rules, the Council held Freemann's Russian Mineral Oil an official article not requiring admission to *New and Nonofficial Remedies*.

Book Reviews

The Practice of Pediatrics.

THE PRACTICE OF PEDIATRICS. By Charles Gilmore Kerley, M. D., Professor of Diseases of Children, New York Polyclinic Medical School and Hospital. Octavo of 878 pages, 139 illustrations. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$6.00 net; half morocco, \$7.50 net.

The preface to Doctor Kerley's Pediatrics (a model preface) tells us that this volume is in no way a revision of a former work by the same author issued some years ago under the title *Treatment of Diseases of Children*, but is a larger and more comprehensive volume dealing with the Practice of Pediatrics and comes as a result of the requests for such a volume from many sources.

The author is professor of Diseases of Children in the New York Polyclinic Medical School and Hospital, and from the wealth of his experience and the abundance of material at his command has presented to the profession a Practice of Pediatrics that bids fair to rank among the classical books on that subject.

The book is practical in every respect and one to which the general practitioner can turn feeling that help will be found.

There is a lack of unnecessary theorizing and polemic discussion.

Diseases are classified and particular attention seems to have been paid to treatment.

Two chapters are added which make the volume more valuable. One discusses Gymnastic Therapeutics and the other Drugs and Drug Dosage.

We were particularly well pleased to note that so distinguished an authority defends the practice of giving the mother prescriptions for "coughs, for head colds and for constipation." In defense of this practice the author states that "I prefer to have my patients take the remedies I prescribe, and which are harmless, rather than to have them run the risk of the administration of opium and alcohol, which would be very apt to be given if this precaution were not taken." We believe the doctor is absolutely right in this respect.

The illustrations and plates are all that could be asked and the press work up to the usual standard of the publishers. We have seen no volume in recent years that we can more conscientiously recommend to the general practitioner.

Goeppl's State Board Questions and Answers.

STATE BOARD QUESTIONS AND ANSWERS. By R. Max Goeppl, M. D., Professor of Clinical Medicine at the Philadelphia Polyclinic. Third Edition thoroughly revised. Octavo volume of 717 pages. Philadelphia and London: W. B. Saunders, 1913. Cloth, \$4.00 net; half morocco, \$5.50 net.

The new third edition of Goeppl's State Board Questions and Answers has been thoroughly revised and much new material has been added to cover questions as found

in a review of the lists of the various state boards.

The newer fields of serology and chemotherapy have been covered by appropriate questions as have also the recent innovations in the treatment of syphilis.

A work of this sort finds its place in several ways, but particularly valuable is it to the prospective applicant for examination before state boards as a means of a rapid review and as such we heartily commend it.

ELECTRICITY IN DISEASES OF THE EAR, NOSE AND THROAT. By W. Franklin Coleman, M. D. M. R. C. S., Professor of Ophthalmology in Illinois School of Electric Therapeutics, Chicago, Illinois, Courier-Herald Press, Chicago, Illinois.

This book is not only valuable to the specialist but equally so to any one using electricity in diseases. It is written and illustrated in such a way that the practical usage is easily grasped. The subject is not considered merely as a therapeutic agent but the many valuable diagnostic features so essential to modern practice are thoroughly exploited and written in such manner that it makes interesting reading.

The illustrative cases both from the writer's practice and frequently quoted from other authors show the wide scope of diseases in which electricity can be used. No doubt if the profession were more familiar with this subject the therapy of the special sense organs would be materially simplified, while improvement and recovery in many cases would result where failure often occurs; for instance in the section on optic atrophy, case after case is shown where electricity accomplished what no other method could promise, while the same

may be said in regard to some of the cases of keratitis, glaucoma, and in some of the diseases considered under the nose and throat. The various currents are considered and the indication as to which to utilize, can be appreciated only from close study of work of this kind and from practical experience. The casual remarks on electricity as embodied in most text books on diseases of the special sense organs and in magazine articles along this line, are usually of little value to the specialist who is not already familiar with the subject.

It is not essential that the specialist must have the complete electrical outfit for all these methods, as in most cities there are physicians who devote their entire time to electro-therapeutics and can accomplish more, perhaps, by working with the specialist, than the specialist can do by himself.

E. R. C.

PROGRESSIVE MEDICINE, a quarterly digest of advances, discoveries, and improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., assisted by Leighton F. Appleman, M. D. Volume 1, March, 1914. Surgery of the Head and Neck. Surgery of the Thorax, excluding diseases of the Breast. Infectious Diseases, including Acute Rheumatism, Croupous Pneumonia, and Influenza. Diseases of Children. Rhinology and Laryngology. Otology. Published by Lea and Feliger, Philadelphia and New York, 1914.

Surgery of the Head and Neck, by Charles H. Frazier, M. D., is a very instructive department. Considerable space is devoted to the pineal body; the hypophysis; special nerves of the cranial group; cancer, and the ductless glands. The review of the literature covering this depart-

ment has been extensive, and it has been covered exhaustively, and the discussion added, makes a very explicit and lucid chapter, and the profession has in this a complete status of this branch for the past year. Surgery of the Thorax, by George P. Muller, M. D., devotes special attention to the surgery of the heart; tuberculosis of thorax with artificial pneumothorax, and considerable space to carcinoma of the esophagus. It is well written, and is up to the standard of corresponding chapters in prior issues of this quarterly. One of the most interesting and important sections in this issue is that by Dr. Ruhrhah on Infectious Diseases. Much new and advanced data is found in this chapter. Every line of it is interesting and important. Because of the amount of work being done in this branch, and of radical changes in opinion being necessarily brought about because of advanced discoveries, this is a most valuable chapter for the profession. Under Diseases of Children, by Dr. Floyd M. Crandall, we have a chapter more general than one devoting more space to special subjects. This is brought up to date in review and discussion. Rhinology and Laryngology, by George B. Wood, M. D., takes up the nasal fossae and renders a comprehensive review of advances and recent literature. Next the accessory sinuses; the pharynx; the tonsils receiving liberal space, and concluding with a similar treatise upon the larynx—a valuable chapter. The concluding chapter is that one upon Otology, by Arthur B. Duel, M. D. The chapter is exhaustive and general, with special space devoted to those topics having received special stress during the past year. It likewise is an instructive contribution of a concise and condensed nature. The volume closes with an index covering the entire work.

T. C. S.

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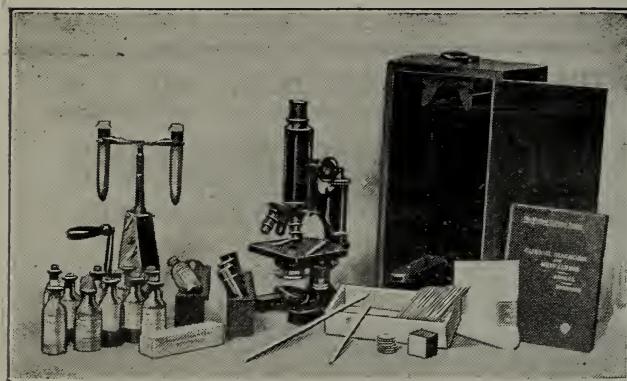
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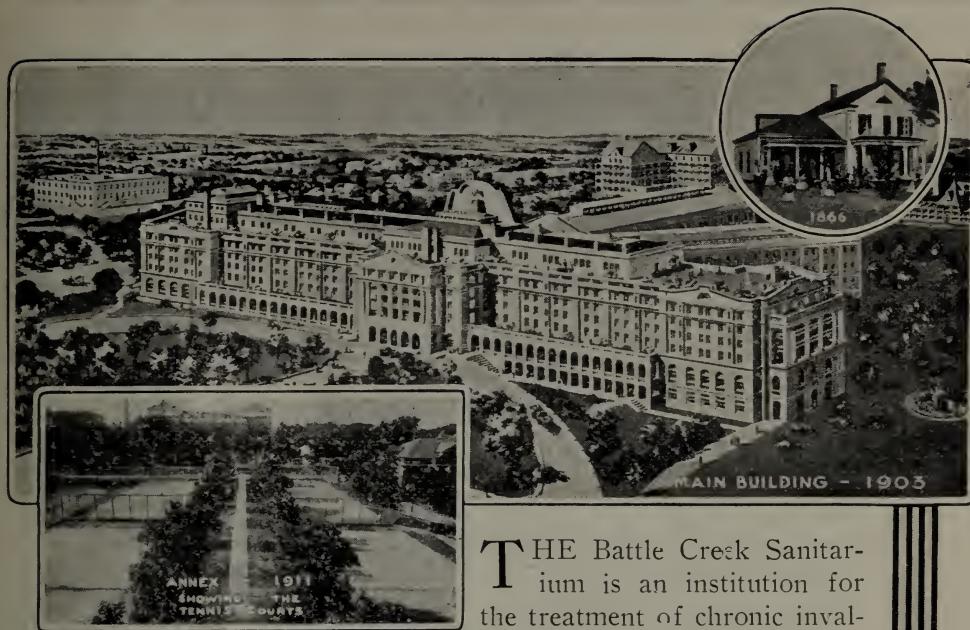
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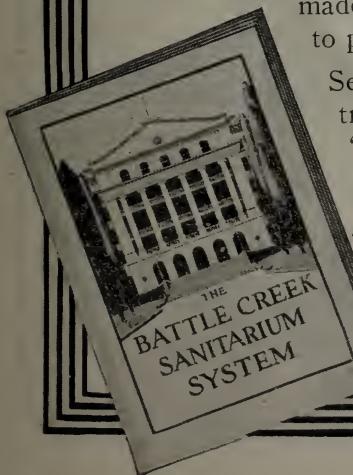
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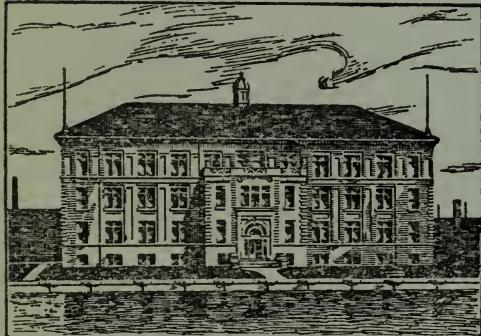
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The New Mexico Medical Journal

PUBLISHED MONTHLY BY COUNCIL OF THE NEW MEXICO MEDICAL SOCIETY

R. E. McBRIDE, M. D., MANAGING EDITOR Las Cruces, New Mexico

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All communications to this publication must be made to it exclusively. It will be more satisfactory to all concerned if contributions are typewritten.

Secretaries of county societies are earnestly requested to report their meetings, including the subject matter of the papers presented and the substance of the discussions.

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The New Mexico Medical Journal

Volume XII

JUNE, 1914

No. 3

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THE JOURNAL OF THE NEW MEXICO MEDICAL SOCIETY.

I trust the Managing Editor's appeal, in the May *Journal* to the Secretaries of the county societies, may bear fruit. It is certainly in bad taste for members of the New Mexico Medical Society to criticise their own *Journal*, especially when they contribute nothing to its upbuilding. I believe, however, that this criticism is thoughtless, and certainly would not be indulged in if there were a proper appreciation of individual responsibility. The Managing Editor cannot do it all, though to him rightly belongs the credit for bringing the *Journal* up to its present efficiency. How much more interesting the *Journal* would be if each number contained concise reports of the county meetings! Of especial interest and profit would be reports of clinical cases with discussions. Brethren, I know the Managing Editor has felt very much discouraged of late. Will you not rally to his support by sending him numerous reports of clinical cases?

E. B. S.

THE DUTY OF A PHYSICIAN TO THE COMMUNITY.

It has been said in the past that money dominates everything, but at the same time there has been no profession known which has worked for lower compensation and which has produced better results than the medical profession. This is not said in a conceited way, but I have yet to find the man in the medical profession who would not for the good of the public work without a reasonable compensation.

If we will analyze and go back over the men who have done so much to protect the public, who have eliminated yellow fever, malaria and matters of that kind, it is somewhat painful to realize that the public does not appreciate in any sense the work of the medical profession. There may be one or two heroes whose actions are praised to the skies, but the work of the steady rank and file is not accredited.

Physicians have for years done more practical charitable work than they have been given credit for. Men are working today with loyalty to their profession for a minimum amount, and, unfortunately, some of those who obtain positions are doing work which could not be repaid by the community

in four-fold proportion. The amount of charity work and the amount of county work done by doctors who do their duty and who are honest, reliable and interested is a donation to the community itself which donation is by no means appreciated. I have in mind men who are working for \$20 a month and saving the county anywhere from \$500 to \$1,000, but no credit is given them.

To those of you who are familiar with Murphy's Clinics and in reading the last Record that came, you will find an argument which is emphatic in its remarks. The moment that you open such work to competition that very moment you put in (I am speaking now to the officials), the worst element that you possibly could have: cheap labor, cheap physicians and a corresponding result of inability to handle cases that come to their notice.

The time has arisen when county officials and State officials should realize that in handling sickness and disease it is absolutely essential that they get the best talent that is possible. It has been said, and very truly, that every man is worth to the State at least \$5,000. Will it not pay the State, in the event of that man not being able from trouble, sorrow or affliction to pay his natural debts, to keep him alive? Is it not a fact that the older countries, Germany, England and France, realize the conditions of keeping the working ability of men and women up to par and have made the necessary arrangements by which they can be kept up to the working problem?

Physicians have in the past forgotten their citizenship. It is not a question of working for favors from Legislatures or anything of this kind, but it

is a question of educating the public up to the point when they will realize that the life of an individual, be he an honest laborer or a lawyer, means something to the State at large and it is our duty as physicians to take a more active part in public propositions than we have done in the past; not for ourselves alone, but for the general public at large. The lives of human beings are to be conserved and the longer you conserve those lives, the longer that individual will be a benefit to the State—will be a producer and indirectly, if you choose to put it from a selfish point, longer a payer of taxes.

J. H. W.

OPTIMISM.

To look on the bright side of life and its affairs with an enthusiastic belief that everything is all right and for the best is ideal. This is especially true as it applies to those who come in contact with the sick. A physician, above all men, should be an optimist—ready to stimulate hope even though he may not have it himself. Hopefulness in the countenance and optimism in the words and actions of the physician are as sunshine in the sick-room; they stimulate hopefulness of recovery in the sick and a courage that often has potent influence for good. Even when recovery is not possible, the *Journal of the American Medical Association* thinks that good, not harm, is done. They make life worth living while it lasts. The psychic influence is always felt so long as consciousness remains. Paget speaking of hypochondriacs, says, "Your chances of doing good will depend mainly on the skill with which you can influence the patient's mind; for of the components of his case the mental condition is the worst."

THE LAS VEGAS MEDICAL SOCIETY.

The name, Las Vegas Medical Society, is perhaps a misnomer, as it is really a County Society. Its membership is composed of physicians in Las Vegas, and a few from the smaller towns of San Miguel and Mora counties.

For the past six months or more the interest has been on a gradual increase. The meetings are held regularly the third Wednesday of each month, as a rule at the Commercial Club, but occasionally by invitation at some physician's residence. The most interesting feature of late has been the report of clinical cases with presentation of the cases. Dr. Miller, Dr. Crail and Dr. Smith have presented cases to the Society. Two of the cases were of especial interest from a diagnostic standpoint, and one as regarded its management. These cases were freely discussed by each member present. As a result of the increased attendance and interest, good fellowship has markedly developed among the members. 'Tis rare indeed to hear of an unkind remark uttered by one brother about another. The Society consists of as high-minded, ethical practitioners as can be found anywhere. Each physician is vying with one another in giving the very best to his patients.

The Society is to be congratulated in having such capable and enthusiastic men at its head as Drs. Kaser and Crail.

Jealousy and malice cannot flourish in an active society. Each member sees too many good qualities in his fellows. After all, isn't it a fact that all that is necessary to appreciate our brothers at

their full value is to know them? And how can we *know* one another if we do not meet together? E. B. S.

MEDICAL JOURNALISM.

We have before us the May number of the New Orleans Medical and Surgical Journal. It is its seventieth anniversary number. In the editorial department it contains much interest the student of Southern Medicine. This journal has represented the best interests of the medical profession for these seventy years; may it continue to do so for many times that longer.

Few physicians realize how necessary good journals are to the profession, and how much we are dependent upon them. They must be both scientific and practical, receive our ideas and give us back others, and more than that, must constantly remind us of, and sustain us in, our ideals. A first class journal has other functions than that of supplying scientific reading to its subscribers. It stimulates our desire for study, careful work and accurate observation. It represents the best that is in us, and poor journals are the mouthpiece of much that is indifferent and downright bad.

Physicians have always been the first observers of the health of the people; we, so to speak, have our fingers on the pulse of the community. All public health work and organization has sprung, directly or indirectly, from the medical profession. Doctors have always been the pioneers of this work. Physicians are busy with active practice, and consequently seldom have time to push health campaigns in various fields. This accounts for the fact that so many laymen, who have retired and are wealthy, have become active

and have materially aided in carrying to a successful conclusion certain lines of work. We will mention two in which the services of laymen have been invaluable: clean milk and tuberculosis. Without the assistance of good medical journals, public health work could not have reached the advanced stage in which it now is.

County and state journals are invaluable to the societies which they represent. They bind the individual members more closely together and keep them informed on local medical conditions. To exist they must receive a fair amount of assistance from the component societies and their members, not alone in contributions of medical and news copy, but in getting advertisements and making such profitable. The doing, or failure to do this, makes or mars a journal. The support of the profession is an absolute necessity.

Until comparatively recently no great amount of attention was paid to the character of some of the advertisements appearing in the columns of many of the state journals. Some of these journals were more or less financially dependent upon this undesirable matter. The American Medical Association has taken it up, and the loss of income due to the elimination of these advertisements has been a severe financial blow to some of these journals. This loss must be made good, and it can be, if the individuals will only give a reasonable amount of assistance.

Our mail is full of pseudo-journals published or controlled by pharmaceutical houses. They are all subsidized, their statements are "interested," and we should not take too seriously anything we read in them. Most of these

firms employ experts, and any incorrect and misleading statements they make are usually made knowingly, and are deliberate bad faith towards the medical profession. These journals do us a direct injury and an indirect one to the patient by preventing him from getting the benefit of correct treatment.

We feel it our duty to refer to the great good accomplished by journals edited by first class men for the benefit of the laity. We wish to mention particularly *The Journal of the Outdoor Life*.

It will be impossible in an editorial to more than scratch the surface of the subject, "Medical Journalism," but in closing we cannot refrain from stating that a medical journal is largely the mirror of the character, ideals and ability of the editor or editors. To do his best work the editor needs the constant sympathy and support of his colleagues. Assist him, and he will do more than his duty by you.

E. C. P.

THE MEDICAL RESERVE CORPS.

While the Medical Reserve Corps was created for a broader purpose than that of having available a list of trained men on whom to call in time of war, at the same time this was one of the important reasons for its organization. There are over twelve hundred officers on the Medical Reserve Corps (inactive list), and those who are willing to serve will undoubtedly be sufficient for any situation that may develop at the present time or in the near future. The Surgeon-General of the Army has sent a circular to each of the officers of the Corps,

in which he submits five questions, to which the officers are asked to answer "yes" or "no." The questions are:

1. Are you ready to accept active duty in your home city or its immediate vicinity should occasion require?
2. Are you ready to accept active duty at camps of mobilization, where recruits will be examined?
3. Are you ready to accept active duty in Army hospitals in the United States or elsewhere?
4. Are you ready to accept active duty with troops in the field?
5. How soon after receiving notice that your services are desired can you leave your home?

It will be noticed that an opportunity to do other effective work is here given those who, while willing to do their part, for some reason or other are not able to go to the front. Many of the officers are men who have organizing ability, who have been connected with hospitals, and who, for this reason, would be of great assistance in administrative work. Some now belonging to the Medical Reserve Corps are men beyond the age-limit for entering as volunteer surgeons for military service or, in fact, for active work in the field. In time of war, however, says *The Journal of the American Medical Association*, there is much to be done besides following the troops: recruits must be examined, hospitals equipped, hospital supplies of all sorts selected, inspected, purchased and distributed, base hospitals maintained, and wounded and incapacitated men transported. All of these duties can be performed by men who, though they have not had actual military training or experience, are able to relieve

the regular military officers whose services can be utilized where they will be most valuable.

About a year ago *The Journal of the American Medical Association* published statistics showing the prevalence of typhoid fever since 1906 in those cities of the United States having over 100,000 population. These cities number fifty-one and include nearly one-fourth of the population of the country. The fact that sanitary improvements have been inaugurated in some localities as the result of the interest aroused by the facts published has led *The Journal* to collect the facts regarding typhoid conditions for 1913 in the same cities.

OUTBREAKS IN NEW YORK AND PHILADELPHIA.

TABLE 1.—DEATH-RATES FROM TYPHOID IN CITIES OF OVER 500,000 POPULATION.

	Deaths from Typhoid per 100,000 Population		Av. 1911-1913	Av. 1906-1910
	1913	1912		
New York	7.0	9.8	9.3	13.8
Boston	8.4	8.1	8.6	16.0
Chicago	10.5	7.5	9.6	15.5
Cleveland	13.5	5.9	11.4	16.5
Philadelphia	15.7	12.5	14.1	42.1
St. Louis	16.9	10.4	14.2	16.1
Pittsburgh, Pa....	18.1	12.7	18.5	74.3
Baltimore	23.6	23.9	24.9	34.6

New York shows not only the lowest typhoid rate in its history, but also a rate that compares creditably with the typhoid rate in European capitals. This low rate was reached in spite of a milk-borne typhoid epidemic which involved several hundred cases in Manhattan during September and October. Philadelphia suffered in 1913 from an unusual outbreak, beginning about the end of April and continuing for several months, an excessive amount of typhoid developing in the district

served by the Torresdale filters. From 70 to 75 per cent of all the cases in the city originated in the infected district. This localization of the typhoid excess in the region supplied by a particular source fixed responsibility clearly on the water-supply. The water on leaving the filter-plant was pure, so evidently infection occurred through leakage into the pure-water mains. It was then learned that a large number of manufacturing plants in the affected district maintained a dual piping system for fire protection or some other purpose—one set of pipes carrying the filtered city water, the other the raw and highly polluted water of the Delaware River. In such a system any defect of the valves or any accident to the separating devices would result in a calamitous mixing. Over 140 of these dual connections were severed by order of the Board of Health and the number of typhoid cases in the affected district has since greatly decreased.

In Cleveland the 1912 rate has more than doubled in 1913. The increase is so great that there is reasonable ground for concern. The Cleveland water-supply is at present derived from Lake Erie without any filtration. Although the water is treated with calcium hypochlorite, evidently the amount of disinfectant used during part of 1913 was not adequate for the purification of the water. It is not surprising that plans are on foot for a filtration plant.

AN INCREASE IN CHICAGO.

A somewhat disquieting typhoid increase occurred in the fall of 1913 in Chicago. The lake water was held responsible by some, but there is no conclusive evidence in support of this

belief. Baltimore still leads this group of cities in excessive typhoid fever, but maintained substantially the same rate in 1913 as in 1912, in the face of a typhoid increase in all the other cities of the group, excepting New York.

TABLE 2.—DEATH-RATES FROM TYPHOID IN CITIES OF 300,000 TO 500,000 POPULATION

	Deaths from Typhoid per 100,000 Population		AV. 1911-1913	AV. 1906-1910
	1913	1912		
Cincinnati	6.4	7.5	8.5	35.0
Newark, N. J.	7.9	7.1	8.4	14.6
Milwaukee, Wis.	11.2	25.3	18.6	27.0
Minneapolis	12.4	11.5	11.8	32.2
Los Angeles, Cal.	13.5	14.6	13.6	19.0
Buffalo, N. Y.	15.3	11.4	17.5	22.8
Washington, D. C.	16.4	21.2	19.5	36.9
San Francisco....	16.7	14.1	15.5	27.3
New Orleans	16.9	14.0	20.5	35.6
Detroit	27.5	17.1	20.1	23.4

Cincinnati has succeeded in bettering a little its excellent record for 1912. Washington recorded the lowest typhoid rate in its history, less than half its average for the years from 1906 to 1910 (Table 2). Remarkable improvement in 1913 is exhibited by Milwaukee. There can be little doubt that the Milwaukee reduction is due primarily to the persistent use of hypochlorite in the water supply. It shows what may reasonably be expected in this typhoid-ridden city when the water supply is permanently and thoroughly protected from sewage contamination.

The great improvement in recent years in New Orleans is worthy of remark and is perhaps due to the extension of a modern sewerage system in that city.

Minneapolis, which ranked eighth in the list in the period from 1906 to 1910, ranked third in the period from 1911 to 1913. The rate for 1913 (new filtration plant in operation since January) differs little from that for 1911 and 1912, when the unfiltered water was treated with hypochlorite.

THE HIGH RATE IN DETROIT.

Detroit stands out in Table 2 with a conspicuousness that can hardly be pleasing to its citizens. The Detroit typhoid-rate for 1913 was the highest in the group and nearly double that of the next highest on the list. Only four other cities in the whole fifty-one had a higher rate than Detroit, and three of these are in the Southern states. There has been little disposition in Detroit to admit that the drinking water might be responsible for the relatively high typhoid prevalence, and there is still a tendency on the part of some of the Detroit newspapers "to rebuke and refute the alarmists." One paper warns its readers not to "take the international report on the water supply of the Great Lakes too seriously," and follows its reassurance with the jaunty remark: "From what the scientists say we folks here must have all died from typhoid fever long ago." The citizens of Detroit certainly do not relish having the highest typhoid-rate, barring one, of any Northern city, nor will they subscribe to the declaration that "as a matter of fact, typhoid fever is not even one of our grave menaces in this city." Why should Detroit shut its eyes to the facts?

TABLE 3.—DEATH-RATES FROM TYPHOID IN CITIES OF 200,000 TO 300,000 POPULATION

	Deaths from Typhoid per 100,000		Av.	Av.
	Population	1911-1913		
	1913	1912	1913	1910
Seattle, Wash. . .	4.9	7.4	7.3	25.2
Portland, Ore. . .	7.8	16.9	14.2	22.3
St. Paul, Minn. . .	8.3	10.2	9.5	18.0
Providence, R. I. .	10.0	10.3	10.8	14.3
Rochester, N. Y. . .	10.2	11.8	10.8	12.4
Jersey City, N. J. .	10.5	7.5	8.1	12.6
Denver	12.7	13.0	14.4	35.5
Kansas City, Mo. . .	21.6	12.8	19.4	55.6
Louisville, Ky. . . .	21.7	18.9	21.6	52.6
Indianapolis	24.5	18.3	23.0	30.4

The figures for this group are encouraging. Six out of the ten cities

report a lower typhoid-rate in 1913 than in 1912, and all ten had a lower average for the three years, from 1911 to 1913, than for the years 1906 to 1910, the reduction amounting in three cases (Seattle, Denver and Louisville) to more than one-half (Table 3). Seattle reported for 1913 the lowest death rate of any of the fifty-one cities. The Kansas City rate for 1913, on the other hand, is so much higher than that for 1912 as to suggest inquiry.

TABLE 4.—DEATH-RATES FROM TYPHOID IN CITIES OF 125,000 TO 200,000 POPULATION

	Deaths from Typhoid per 100,000		Av.	Av.
	Population	1911-1913		
	1913	1912	1913	1910
Scranton, Pa. . . .	6.4	8.7	9.0	31.4
Paterson, N. J. . . .	6.8	4.6	10.9	19.3
Oakland, Cal. . . .	9.1	9.0	10.2	21.5
New Haven, Conn. .	11.3	24.5	19.4	30.8
Worcester, Mass. . .	12.3	6.6	8.5	11.8
Syracuse, N. Y. . . .	13.0	16.8	15.2	15.7
Atlanta, Ga.	16.6	25.2	35.9	58.5
Richmond, Va. . . .	19.2	16.2	17.6	34.0
Columbus, Ohio. . . .	19.2	20.2	17.7	40.0
Memphis, Tenn. . . .	30.1	56.2	49.2	35.3
Birmingham, Ala. . .	36.0	38.0	32.5	37.4
Toledo, Ohio.	41.8	33.0	32.5	37.4

Group 4, like Group 3, shows a lower death rate in most cases for 1913 than for 1912. New Haven reports the lowest death rate in its history, less than half that of the preceding year. Its rate is still twice that of the neighboring city of Bridgeport. Worcester, after maintaining a reasonably low record for a series of years, fell from grace in 1913 and recorded a higher typhoid-rate than the average for the preceding seven years. Atlanta and Memphis report a noteworthy decrease, Toledo an increase. Only one city (Memphis) has a higher average for the period from 1911 to 1913 than for 1906-1910. Two cities maintained about the same level (Syracuse and Toledo); all the others show a substantial reduction, especially marked

in the cases of Scranton, Richmond and Columbus. Toledo continues to have a high rate for a northern city.

TABLE 5.—DEATH-RATES FROM TYPHOID IN CITIES OF 100,000 TO 125,000 POPULATION

	Deaths from		Av.	Av.
	Typhoid per	100,000		
	Population	1911	1906	
	1913	1912	1913	1910
Bridgeport, Conn.	5.4	7.4	5.5	10.2
Omaha	6.9	13.2	21.7	40.8
Spokane, Wash.	7.2	16.9	20.9	50.4
Cambridge, Mass.	9.2	2.8	5.6	9.8
Lowell, Mass....	10.0	9.2	8.6	13.9
Fall River, Mass.	15.5	18.8	15.0	12.5
Hartford, Conn....	11.5	12.7	14.7	18.9
Dayton, Ohio....	15.1	17.9	17.1	22.4
Grand Rapids,				
Mich.	16.7	34.0	25.6	29.7
Albany, N. Y....	27.4	17.7	21.0	17.5
Nashville, Tenn....	36.1	30.1	39.4	61.2

Grand Rapids shows the greatest change in any city in Group 5, the typhoid rate being cut in two in this the first year of operation of the new water filter. Fall River also shows marked improvement. Albany suffered in April, 1913, from the flooding of the slow sand-filtration plant with the polluted Hudson River water. From April 1 to May 1, 180 cases of typhoid were reported. Five deaths from typhoid were reported in April and seven in May or nearly one-half the year's record (twenty-eight). But for this outbreak the Albany death rate would have been apparently very close to that of 1912.

Nashville, Tenn., had a higher rate in 1913 than in 1912. Is there any reason why Nashville should have a typhoid rate more than twice as high as New Orleans?

Only three cities have a higher average typhoid rate from 1911 to 1913 than from 1906 to 1910 (Memphis, Tenn., Fall River, Mass., and Albany, N. Y.).

Cities with an average typhoid death rate in the years from 1911 to 1913 below 10 are New York, Boston, Chicago, Cincinnati, Newark, Seattle, St.

Paul, Jersey City, Scranton, Worcester, Bridgeport, Cambridge and Lowell—thirteen cities as contrasted with one (Cambridge) having an average below 10 from 1906 to 1910.

TABLE 6.—TOTAL AVERAGE TYPHOID DEATH-RATE FOR 1912 AND 1913.

	Total Population (51 Cities)	U. S. Census-Bureau (Estimated by Methods)	Typhoid Death-Rate	
			Deaths	per 100,000
1913	21,844,002		2,775	12.70
1912	21,472,847		2,731	12.72

In 1913, 26 cities had a lower typhoid death rate than in 1912, and 25 a higher; 14 had a death rate under 10 in 1913 and 15 in 1912. While not a "typhoid year" in the sense of an actually increased typhoid rate, it is evident that 1913 was not marked by any considerable typhoid reduction.

East Las Vegas, N. M., June 9, 1914.
The Journal of the New Mexico Medical Society, Las Cruces, N. M.

I beg to report the following licenses granted at the last meeting of the Board of Health and Medical Examiners:

UPON CREDENTIALS.

Julius C. Petit, graduate of the College of Physicians and Surgeons, Keokuk, 1872.

David H. Simmons, Vanderbilt, 1893.

Stanley G. Zemer, Rush, 1913.

Lucien L. Miner, Columbia, 1904.

Andrew J. Montgomery, Atlanta Medical, 1897.

Hal L. Speedy, Pittsburgh University, 1911.

George F. Bartholomew, Omaha Medical, 1902.

Caleb S. Middleton, Hahnemann Med., Philadelphia, 1892.

UPON EXAMINATION.

Wm. C. Matthews, American Med., St. Louis, 1913.

John H. Sanford, Univ. of Tennessee, 1913.

J. M. Gregory, Grant Univ., Chattanooga, 1904.

Cammillo Passudetti, Padova Med., 1886.

Albert E. Collyer, Hering Med., Chicago, 1904.

W. E. KASER, Secretary.

The sixty-fifth annual session of the American Medical Association will be held at Atlantic City, New Jersey, from Monday, June 22 to Friday, June 26th, 1914.

The 39th annual meeting of the American Academy of Medicine will be held in Atlantic City on June 19 to 22, 1914. With the exception of the Sunday afternoon Conference, the various sessions will be held at the Hotel Dennis, which will also be the Academy headquarters.

The American Proctologic Society will hold its sixteenth annual meeting at Atlantic City, N. J., on June 22 and 23, 1914. The headquarters and place of meeting will be Hotel Chalfonte. The profession is cordially invited to attend all meetings.

The Clinical Congress of Surgeons of North America will hold their fifth annual session in London, *England*, during the week of July 27th, 1914.

We have been favored with a complete program of this meeting and while it is full of interesting titles and promises to be a most scientific surgical meeting we feel constrained to ask, "Of what value is this meeting to American Surgeons?" "How many of them can find time or even means to attend?" American Surgery is Ameri-

can Surgery and the Clinical Congress of Surgeons of North America has no more right to hold its annual session in London than the New Mexico Medical Society has to hold its annual meeting in Peru.

A hasty glance over the program sent us shows that apart from the addresses of welcome and the addresses of the incoming and retiring presidents, there are promised twenty-seven papers. Of these twenty-seven papers, one comes from Canada, seven from the United States and nineteen from England, Ireland and the Continent. Truly a Congress of North American Surgeons! The preliminary clinical program is made up *entirely* of men from London.

The point that this Journal desires to make is that a Clinical Congress of Surgeons of North America *has no business* to meet in London where the rank and file of American Surgeons cannot attend. Our international meetings should be reserved for our international Associations and North American Surgeons should not be expected to follow the lead of the big men of the surgical section of the North American profession, who sometimes play to the galleries, to a meeting place beyond the seas.

THE DECREASING LIST

OF MEDICAL SCHOOLS

The progress in medical education during the past year in the direction of the improvement of the stronger medical schools has been most encouraging. This progress has taken the form generally of better hospital relations, better equipped laboratories, full-time professors, and the addition of teachers dealing with particular phases

of medical education. The Yale Medical School has secured a most desirable arrangement under which it has the entire control for teaching purposes of the New Haven Hospital. Fordham University Medical School has called to its head a dean of high medical standing, and has furnished additional facilities for laboratory and hospital work. In the south, where medical schools of the stronger type are greatly needed. Johns Hopkins University has received a gift of \$1,500,000 from the General Education Board, and the Vanderbilt University Medical School has been strengthened by a gift of \$1,000,000 from Mr. Andrew Carnegie on behalf of the Carnegie Corporation. The magnificent enterprise of the Washington University Medical School at St. Louis has gone forward with the completion of its full list of hospitals and with the working out of a hospital arrangement of the most modern and desirable type. The School of Medicine of Western Reserve University has strengthened its position by raising an endowment of a million dollars. The medical school at Cincinnati has greatly increased its hospital facilities, and has made an earnest effort to increase its resources. In all sections a movement is noticeable looking toward the strengthening of the medical schools in the direction of better teaching, better clinical facilities, right relations with hospitals, and the employment in increasing measure of professors of clinical medicine and of surgery who are primarily devoted to their chairs rather than to the work of a practitioner. All these marks of progress are most gratifying. Not less gratifying is the steady diminution in the number of inferior medical

schools, of which the number still remains far too great. In 1910 there were 162 medical schools in the country. There are at present 115, a decrease of 47. The work done by the Council on Education of the American Medical Association has been most noteworthy, both in the direction of strengthening the good schools and in making impossible the inferior and unnecessary schools.

The Council on Education through its officers now grades its schools in four classes: Class A+, which are considered acceptable medical schools; Class A, which are colleges lacking in certain respects, but in the main acceptable; Class B, colleges needing general improvements to a considerable extent before they can be considered acceptable institutions; and finally Class C, among which are reckoned those that would require complete reorganization and the furnishing of a very large increase in income in order to do the work of even a respectable medical school. Colleges in the last class are not recognized by the licensing boards of twenty-four states. The 115 graded colleges are now distributed as follows: in Class A+, 24; in Class A, 39; in Class B, 23; in Class C, 29. A more concise description of these four grades of colleges would be: Class A+ represents the modern type of college; Class A represents the well-meaning college that has not as yet acquired the facilities for presenting a medical education of the best type; Class B includes as a rule colleges which are entirely too weak to offer such a medical education as the student of today should receive; while Class C includes colleges so inefficient that they would not be tolerated in any

other country. Of this last group three are in California, three are in Illinois, five in Missouri, two in New York, two in Tennessee, two in North Carolina, two in Wisconsin, and two in Texas.

The 1913 report of the Council on Medical Education announces its requirement, beginning with 1914, of one year of college work for entrance to all of the first two grades of colleges. About thirty-two schools now require two or more such years and six have arranged to do so, while twenty-four others require one year and seventeen have agreed to do so. Twelve state boards require more than high school graduation for admission to medical study. In twenty-seven states of the Union admission to medical schools is now a matter of state control through the state medical board.—(Carnegie Foundation 1913 Report.)

No wide awake physician omits the reading of advertisements. He must read advertisements to keep posted. The best goods in all lines are advertised. Advertised goods have to maintain a standard. The advertised goods are the biggest sellers. This Journal does not carry any advertisements that the publisher does not believe are just as represented. Keep posted, doctor! Tell our advertisers you saw their announcement in the New Mexico Medical Journal.

COMMUNICATION.

R. E. McBride, Editor New Mexico Medical Journal, Las Cruces, N. M.

Dear Sir:—The Council on Health and Public Instruction of the American

Medical Association, has established a medico-legal bureau for the purpose of collecting, arranging and studying all of the available material, bearing on medico-legal questions of interest to physicians, or relating to public health matters. This bureau is in charge of Mr. John D. Hubbard, a graduate of the Northwestern University School of Law. We desire to secure all available material, bearing on medico-legal subjects, especially all pamphlets, bulletins, monographs, circulars, legislative bills, laws, reports or special articles on any medico-legal or public health topics. As rapidly as material can be secured and studied, we hope to furnish information to all those interested on any topic coming within the range of the bureau. We shall greatly appreciate it, if you will kindly send us, at any time, any such material that may come into your hands. This will be properly classified, cataloged and preserved for use in answering inquiries on any medico-legal question. We hope to make this bureau of service to the officers and members of state associations, executive officers of state boards of health and medical examining boards and any others interested. Any assistance or contributions will be appreciated and of great assistance in carrying out the plans of the bureau.

With cordial thanks for your many courtesies in the past, and hoping that we may, through this bureau, be of some assistance to you in the future, we remain, Very truly yours,

FREDERICK R. GREEN, Secretary,
Council on Health and Public Instruction.

COMMUNICATION.

Editor New Mexico Medical Journal,
Las Cruces, N. M.

Dear Sir:—I am sending you report of a case which I presented to the Las Vegas Medical Society, at its last regular meeting, May 20, 1914, and which was deemed of sufficient interest to report in our Journal. Indeed, a case of abdominal pregnancy, going on to full term and discharging spontaneously through the abdominal wall, deserves permanent record.

This case was brought to my office May 16, 1914, from a long distance in the country, because of a discharging sinus in the abdominal wall, which refused to heal.

CASE REPORT.

Bonifacia Lucero Garcia, married, aged 32, had one child two years ago.

Present illness: Thought she was pregnant, as her abdomen began to enlarge; had morning nausea; enlargement of breasts. Began having severe pains at the second month that radiated from the umbilicus to the pubes; pains were more or less constant, at times excruciating, until three months before pregnancy terminated.

Distinct movements of the child were felt both by the patient and the mother at the fifth month, and were so felt until two months before she was delivered.

Two months before delivery, the enlargement of the abdomen was more rapid than before; the pains were more constant and severe; she was burning up with a fever; chills began followed by sweats; at this time a blister was noticed above the pubic hairs. They applied a poultice and in three days the thing broke, discharging three chambers full of green stinking pus

and so kept on discharging for two weeks when some hairs came out, followed in a few days by a dead child eight months old. Skin of child was completely macerated.

Woman made a good and rapid recovery, and abdominal wound is about healed up. Child came April 28, 1914.

Your very truly,
M. F. DES MARAIS, M. D.

Original Articles

THE CONSTITUTION OF PROTEIDS

By

Earl Sprague Bullock, M. D.

Physician-in-Chief to The New Mexico
Cottage Sanatorium, Silver City
New Mexico.

Read before the Grant County Medical
Society, Feb. 27, 1914.

There is today a full appreciation that the protein molecule is the very basis of life. For many years there has been dissatisfaction with the general terms applied heretofore, and a desire to know exactly of what such things as albumen are composed, the units of which they are built and even how these units are arranged in the molecule. Not only should we know how the protein molecule is built, but also how it is destroyed in the body. We should be able to follow it from the stomach or alimentary canal to muscle, brain, etc., and back again to the form in which this substance is eliminated.

Not all the steps of this progress are complete as far as our knowledge is concerned but each and every year,

and I might say nearly every month witnesses some new addition to our information regarding the biochemistry of proteins.

The protein molecule though actually cumbersome in size as compared to other chemical units is a very delicate matter indeed. For it is easily disrupted, and in fact one of the chief difficulties which have stood in the way of its elucidation has been the ease with which it is destroyed. It required the genius of an Emil Fischer to break the ground for the basis of our present knowledge of the subject. He furnished the method which has permitted progress in this branch of chemistry. The ester method by which this was done has been entrusted by Fischer to his pupil Abderhalden, while the master chemist himself has devoted his efforts to the synthesis of the polypeptides, and the optical projection of the amino acids, substances of transcendent importance in metabolism, and truly the form in which the cellular particulates of the body utilize the proteins as food.

Our knowledge of the chemistry of proteoses, peptones, and of enzymes as well, is still very incomplete, and yet wholly necessary to an understanding of the problems of nutrition. We must start however, if science is to be crowned with full knowledge of the biochemistry of the body, with the analysis of proteins.

As a young man it was my privilege to sit at the feet of a great chemist—one who in his old age had a full appreciation of the value of the future of biochemistry to the human race. He said, prophetically, as it now seems, that the greatest strides in medicine in the coming century would come

through chemistry and chemists. That I have been able to follow with some degree of understanding the developments of biochemistry during that past twenty-five years is due, wholly I think, to the thorough grounding I received from Dr. Kedzie at the Michigan Agricultural College. He made me understand the benzol ring, quite an accomplishment for an adolescent mind, and reflecting great credit upon the old doctor. We now comprehend, that the battle of the animal economy against disease and particularly those maladies due to infective microorganism, may be, in the final understanding, a question of parenteral digestion of proteins, with the liberation in the body of substances, which in nature's analytical laboratory, are poison at certain stages of their digestion, and at others either negative or harmless, or even possibly capable of utilization. It is indeed curious, that Pasteur, Metchnikoff, and Ehrlich, the three men who have done most for modern medicine, did not have a medical training; bearing out Dr. Kedzie's prophesy, all were chemists. Metchnikoff found the trail that led to phagocytosis, by watching the fate of certain organisms in the bodies of water daphniae, and there observed the solution or digestion of these pathogenic organisms in the motile cells of the daphniae. Then and there he surmised the existence in the cells of the daphniae of an enzyme like substance which he called cytase. He went to Pasteur with his discovery, and as long as the great man lived was associated with him.

Keeping in mind, Ehrlich's complements and amboceptors, Bordet's substance sensibilitrix, Metchnikoff's mi-

crocytase, and macrocytase, and the fixatives of other people is a pretty confusing problem, but it will simplify matters greatly if we remember that what they are mostly talking about are enzyme like principles which are capable of splitting, combining with and recombining with protein units which are either useful or harmful to the body, and in the case of the proteins of pathogenic organisms, always harmful. In fact, life and the struggle for existence may be defined, not in a large generalization such as that of Herbert Spencer, "life is the constant adaptation of internal to external relations," but rather more concretely as a battle between proteins and enzymes.

It is needless to say that a clinical person like myself cannot obtain knowledge of such a vast subject as the chemistry of proteins at first hand and I make frank confession of my obligation to a number of investigators, including Skraup, Fischer, Abderhalden, Wohlgemuth, Kempe, Jortner, Langstein, Neuberg, Sorensen, Plimmer, and many others. The proteins are divided into groups, according to origin, solubility, and other characteristics as follows:

1 Protamines, such as salmine, sturine, clupeine, scrumprine, etc.

2 Histones, like thymus histone, lota histone, and the histone from blood corpuscles.

3 Albumins, that is ovaalbumin, conalbumin, serum, albumin, etc.

4 Globulin, that is serum globulin, fibrinogen, myosinogen, myosin, legumin, conglubin, edistin, excelsin, etc.

5 Glutelins, such as occurs in wheat, etc.

6 Gliadins, found in all cereals

7 Phosphoproteins, for instance caseinogen, etc.

8 Scleroproteins, as keratin from hair, etc., Callogen, gelatin, elastin, etc.

9 Conjugated Proteins (A) nucleoprotein that is nucleic acid in combination with any of the proteins in group 1, 2, or 3. (B) Chromoproteins which are certain substances in combination with proteins, as in haemoglobin (C) The glucoproteins, that is carbohydrates in combination with proteins as in mucin, and ovomucoid.

This does not begin to exhaust the list of known proteins, but will convey an idea of the extent of the subject and as well gives those most necessary to know. We must also mention some of the derivatives of the proteins:

(A) Metaprotein, for instance acid albumin and alkali globulin.

(B) Proteoses, such as caseose, albumose, globulose, etc.

(C) Peptone, such as fibrinpeptone

(D) Polypeptides, such as glycyl, alanine, leucyl, glutamic acid, etc

It is well to keep in mind that with the exception of the protamines histones and proteid derivatives all proteins contain C, H, N, S, and O in about this proportion:

C 51-55%

H 7%

N 15-19%

S 0.4-2.5%

O 20-30%

the formula of which is C726 H1174 N194 S3 O 214 which will give some idea of the cumbersome structure of the protein molecule. The above is the formula of globin, the basis of haemoglobin.

Phosphorous is also added in the nucleoproteins and the phosphoproteins. Although chemists have worked

with proteins for over a century, the coming of a Fischer was necessary to give us anything like a clear idea of what they are really made and how they are built. He showed that the protein molecule is constructed of a series of amino acids. The amino acids which have been isolated are:

(A) Monoamino monocarborylic acids; they are, Glycine, Alanine, Valine, Leucine, Isolucine, Phenylalanine, Tyrosin, Serine, Cystin, Aspartic acid, Glutamic acid, Arginine, Lysine, Histidine, Priline, Oxyproline.

That these amino acids are the bricks of which the proteids are built, has been most graphically proven only recently by a Copenhagen biologist, who discovered that animals may be fed with these substances indefinitely by introducing them directly into the circulation, and the alimentary tract eliminated entirely as a factor in metabolism.

Besides the amino acids already mentioned, others will undoubtedly be discovered as time goes on. Investigators have been just about a hundred years finding out the ultimate digestive unit in proteids: while nature in her marvelous laboratory, constructs and reconstructs, analyses and synthesises all these substances and many others with celerity and ease. We now know that we build our muscles and every other part of the body containing nitrogen out of amino acids; to carry the problem further, and understand the next step after the utilization of the amino acids, the link between amino acids and urea, is the problem of the future.

The analysis of the protein molecules has been accomplished by means of fusion with an alkali, oxydation with per-

manganate, by the action of Halogen and by hydrolysis, the last being most important, as it is the method which has shed the most light. Hydrolysis is done by the action of acids, alkalies, proteoclastic enzymes, and as said before, has given us most of our knowledge of proteins. Using hydrolysis, we obtain a complex mixture of all the units or bricks of the protein molecule previously mentioned. The next step, their isolation, has been done by fractional crystallization of the compounds themselves, of their salts of copper, silver, etc. The residual uncrystallizable syrups, have only recently been elucidated. The substances mentioned are all monoamino acids, and a Hungarian chemist, Dreschsel, discovered that the protein molecule also contains diamino acids. In 1911, Fischer began his epoch-making work. This was the fractional distillation in *vacuo*, of the esters of these substances. As a result of this method, we know that about 70% of the hydrolysis products; we also know that phenylalanine, serine, alanin, are constituents of all proteids instead of a few as previously supposed. This method also furnished us with the new substances proline and oxyproline. As fast as new units or bricks have been discovered, the elucidation of their exact constitution has soon followed. This is true of every unit except oxyproline.

The study of the protein molecule falls naturally as follows:

(A) The chemical composition of the molecule; (B) the composition of the units or bricks, (C) the synthesis of the proteins, (D) the action of the enzymes on the polypeptides; only the first two will be considered in this paper, though our President has prom-

ised me a chance later in the year to discuss the last part or synthesis of proteids as far as present knowledge permits us to go.

Hydrolysis by acids, alkalies and proteolytic enzymes, has been referred to, as the only method that has given any real knowledge of proteins. It is unfortunate, that hydrolysis by means of the enzymes, is never really complete. At a certain point, a complex body, antipeptone, is formed, which resists further action of the enzymes, therefore the use of enzymes will not do for the analysis of the proteids. It has been shown by Abderhalden and others, that a sufficient long boiling of a protein with either hydrochloric or sulphuric acids, will effect the complete hydrolyzation of the protein. After the prolonged boiling with the acids, the biuret test for proteids will tell if the hydrolysis has been complete. In a brief paper, it is out of the question to give the results of the analysis of all the proteins and their units; it will be unprofitable and tedious as well. I will therefore content myself with the analysis of a few typical examples, and for the purpose will select the monoamino acids, tyrosin and cystin. They have a very slight solubility in neutral aqueous solutions; they therefore crystallize out easily after hydrolysis, by neutralizing and concentrating the solution. Then, if the hydrolysis has been done by sulphuric acid, this can be completely removed by baryta. The action of the acid is continued until Mellon's test no longer shows tyrosin, when the resulting crystals are weighed and the exact proportion of tyrosin calculated. Both tyrosin and cystin are derived from hair, horn, egg shells, etc. Cystin may be separated from tyrosin by

means of phosphopungstic acid, which precipitates the cystin from solutions containing tyrosin.

The isolation of the diamino acids, of which histidine is a typical example, is more difficult and tedious, than is that of monoamino acids. About fifty grammes of protein are hydrolysed with sulphuric acid. The exact amount of the protein is then estimated by determining the amount of nitrogen in ten c.c. By means of baryta, the sulphuric acid is now removed; then the filtrate and washings are evaporated down in vacuo at seventy C, and again made up to one liter. A determination of the nitrogen in ten c.c. of this solution gives, by difference, the quantity of nitrogen contained in the melanin which is carried down by the barium sulphate. It is designated as humin nitrogen "1." In this liquid two determinations are made of the nitrogen present as ammonia, which is then removed from the balance of the solution by evaporation with barium carbonate on a water bath. The two portions free from ammonia are then combined and made alkaline with barium sulphate; then the precipitate with barium carbonate is filtered off and washed by boiling with water three times. The excess of barium is removed from the filtrate by dilute sulphuric acid and the precipitate again filtered and washed out. Now filtrate and washings are combined together, evaporated, and again made up to one liter and the nitrogen contents once more determined. Allowing for the nitrogen given off as ammonia, the difference between this and the previous estimation gives the humin nitrogen "2" contained in the alkaline barium magnesia precipitate. We will now precipitate the histidine

from the solution which contains a small quantity of sulphuric acid. It is placed in a 5 liter flask and treated with a hot saturated solution of silver sulphate, which is added till the solution gives a yellow precipitate, when a drop is removed and tested with baryta water in a watch glass. If there be any undissolved silver sulphate at the bottom of the glass, it is dissolved by adding more water before a fresh quantity is added, in order that a yellow precipitate be given in the test-drop with baryta. As soon as sufficient silver is present to combine with the arginine and histidine, it is allowed to cool to 40 C, and then saturated with finely powdered baryta until some remains undissolved after repeated shaking. The precipitate which is formed, and which consists of the silver salts of arginine and histidine, is filtered off, and rubbed up together with the filter paper in a mortar with baryta, when it is again filtered off and washed with baryta water. The greater portion of the histidine is removed by precipitating with mercuric sulphate.

These examples of the analysis of a typical monoamino acid and of a diamino acid, are simple and easy compared with the analysis of some of the protein units. In spite of all the analytical work by so many investigators, covering the acids mentioned in the first part of this paper, there still remains a considerable deficit in the sum of the amino acids composing the protein molecule; in other words, some of the bricks are still missing. As no new unit has been discovered since 1904, it seems to follow that the deficiencies are due to losses incurred in isolating and purifying the amino acids, rather than to undiscovered units. It seems perfectly

plain, from the knowledge in the possession of biochemists today, that the various proteins are composed of the same units, and though two proteins of any group may contain the same amount of any unit, we are not therefore justified in claiming that they are identical, and even if they contained the same amount of all the units, they could be different, for the arrangement of the units in the molecule might not be the same.

As has already been indicated, it has not yet been possible to make a complete analysis of any protein, there are unaccountable losses in each and every instance. One thing seems clear however, and is of practical value in selecting proteins as foods, and that is, the proteins vary greatly in the amount of nitrogen they carry; for instance, chicken muscle, fish muscle, scallop muscle and beef muscle, all contain different proportions of nitrogen and all closely resemble the vegetable globulins. Of the proteins of the muscles, lysine is the most important. It has been observed, that as we ascend the scale of life from vegetables up, the amount of glycerine, alanine, leucine and proline increase, and who knows, this may be the final answer to the vegetarian, though they will probably come back with the work of recent American investigators who have found that even the protein contained in hay can be utilized by the human digestion if reduced to an impalpable powder.

It can be readily seen, that the number of proteins so far identified, has assumed large proportions; it is not however profitable to go further into their analysis, but rather to proceed directly to the practical application of our knowledge of the amino acids. For

long, it has been a matter of the greatest interest to both physiologists and physicians to determine the ultimate fate of the proteins in the body, and as the work of the Danish investigator previously referred to, seems to indicate, by means of the amino acids, we have reached the bottom. This is a really epoch-making discovery and proves beyond question that the proteins are ultimately split into amino acids which compose the stones out of which the nitrogenous portions of the body are built. It would be beside the purpose of this paper, to discuss the recent discovery of enzymes which decompose carbohydrates, though, of course, they must be of great importance in metabolism.

In the first part of this paper it was shown how acids and alkalies are employed in the first steps in the analysis of proteins and it is with pride, as an American, that I can point out the use which Victor Vaughan, of Ann Arbor, has made of this method in splitting the enormous protein molecule into two groups, a poisonous and non-poisonous one. Even if his theory of the application of his discoveries to infective diseases, does not receive ultimate confirmation, he has, with the isolating of his poisonous and non-poisonous sensitising group, made a tremendous advance in our understanding of proteids. It is truly remarkable, that any proteid, that for instance, from peas, beans, hay, muscle, egg-white, or particulate bacteria from the tubercle bacillus to the cholera vibrio, may be split in so simple a manner into a poisonous group and a sensitizing non-poisonous one, and that in each and every instance, when these poisonous groups are introduced into animals, they kill in exactly

the same manner regardless of their source and that the death that follows, the preliminary symptoms completely duplicates anaphylactic shock. Lately von Pirquet, Friedburger, Schittenhelm and Weichardt, have all fallen behind Vaughan in the effort to place his theory of the mechanism of infective diseases on a firm foundation, though Doerr of Vienna still cries "unproved." Knowing Vaughan personally, and considering him my friend, it is an additional pleasure to record that I have always thought, ever since he showed how accurately he could reproduce in animals all the phenomena of fever by means of his split products, that he was doing wonderful things in the biochemical world.

We may take it as proved that the essential elements of bacteria are proteids. In order to be pathogenic, an organism must be able to fit into its own structure, the proteins of the body upon which it feeds. For the purpose of rendering these proteins fit for assimilation the bacteria must work as all other living cells do, through the medium of enzymes, and finally be able to synthesize the digestion products into its own body. These ferments may be either specific or general or both. Some of the ferments of bacteria require a definite range of temperature in which to do their work. It therefore naturally follows that all organisms which require a temperature much higher or lower than that of the animal body cannot be pathogenic. Opposed to the bacterial enzymes are those of the body cells, which can also digest proteins, as for instance, the leucocytes, with what Metchnikoff in the early days of biochemistry called their microcytase and macrocytase. Each and

every living cell must have its own set of enzymes, as well as the capacity of making new ones on demand. Therefore an organism is pathogenic or not depending entirely upon whether or not it can grow in the animal body. When a bacterium introduced from without multiplies in the body with great rapidity there is an acute process, and when as in tuberculosis the bacillus is of slow growth, only sensitizing the body cells locally, the process is chronic. When an old, thin, worn out consumptive dies without any fever he is simply poisoned to death by the tubercle proteid, as surely as though it had been done by arsenic. In such an exhausted state the body will not even split the bacillary proteid.

Vaccination is simply a training of the body to supply a specific ferment, which will digest the protein of the invading organism immediately, or soon after its introduction into the body. When a fatal dose of colon bacilli is injected into a G. pig there is a period of incubation of eight to twelve hours before the animal shows signs of illness. This is the period of enormous multiplication of the organism in the body. The organisms are using the proteids of the pig's body for their own purposes. As the bacilli are intact there is no liberation of their protein poison, and therefore, during this period of incubation in any disease there are no symptoms. Virulence of an organism is largely a question of rapidity of multiplication. At the end of incubation, the pig becomes ill and depending upon dose either recovers or dies. When signs of illness are manifested the body cells have become sensitized, and then start the elaboration of a specific ferment which digests the bacillary pro-

tein, which is of course then set free to do its poisonous work. Recovery then depends either upon the complete breaking down into harmless amino acids of the bacillary proteid, or the manufacture of something which will combine with the poisonous molecule to render it inert. Probably the former process is nearer the truth and is in line with what we already know of parenteral digestion. The mind at this stage is naturally confused by the question of toxins and antitoxins—an entirely different matter. It should be remembered, however, that all this work grew out of the attempt to discover why organisms which did not produce a toxin were still capable of causing disease. We know of but three organisms which produce true toxins, the diphtheria bacillus, that of tetanus, and the botolitmus bacillus, and yet we have vastly more infectious diseases to account for in which no toxin is produced.

However, even though Vaughan's theory is proven, there must still be much work done to elucidate the exact manner in which the protein poison is ultimately destroyed in the body. It is not necessary that this mechanism should be general in character. For instance, in pneumonia, the cells of the lungs are those especially sensitized by the invading bacterium, and that is where the battle ensues.

Now, if into a healthy G. pig there is introduced a fatal dose of the dead protein of the colon bacillus, the period of growth is eliminated, but within a few hours, three or four, the pig is just as ill as the first one into which living bacilli were introduced. It follows then that it requires about four hours for the cells of the pig to be suf-

ficiently penetrated to cause sensitization and consequent elaboration of the ferment which splits the dead protein of the bacillus and sets the poison free. It is indeed fortunate for us that we cannot split at once the various organisms with which we are infected into their poisonous and non-poisonous groups, for if we did we would get at once the full effect of the liberated poisons. In fact all these processes overlap, and in one place we may be dealing adequately with the invading organism, while in another it has the best of us, and the former process must overtake the latter before recovery is possible or complete.

Vaughan now takes another pig and injects it with the free protein which had been obtained by splitting the bacillary substance *in vitro*. In this instance the entire incubation period, plus the sensitizing period, has been eliminated and the pig dies at once, just as though he had been shot through the head.

Some years ago I talked with Prof. Vaughan on the train en route to Washington. He had just succeeded in duplicating experimentally, most any type of fever in animals by injecting proteins. All sorts of fun was poked at the Professor by his confreres who occupied the "seats of the mighty" in the lobby of the New Willard in Washington. As a matter of fact, from Cohnheim to Krayle, we never had a chance to understand the mechanism of fever, until Vaughan did this work. Now when all Europe is beginning to consider Vaughan's work, perhaps some of our own men will recognize its importance. Fever is simply the result of heat produced in the body when it is busily engaged in its won-

dous laboratory in the vital analysis and synthesis of proteids—as simple as though it was done in vitro in the test-tube.

If it were not for the fact that we can continue to break a peptone into an amino acid, we would all die from our own digestion. It has been proved that a G. pig can be sensitized to egg-white, by feeding this substance per orum, and as a G. pig is not calculated to digest egg-white enterally, some of it is only partly changed and in this form absorbed, with disastrous results to the animal. What makes such a chronic disease as tuberculosis so different from a more acute infective process, is the fact, that during ages of parasiticism, the bacillus has well learned how to protect itself from our body enzymes. And this is why nature's cure of tuberculosis is largely a local, not a general matter, an infection handled *in situ* by the invaded cells by means of fibrosis and calcification, etc. The cells recognize that they can do little or nothing against the bacillus, they therefore proceed to wall it off and starve it to death.

Such in brief, is my understanding of Vaughan's theory as elaborated in his recent work on split proteids. Some investigators in tuberculosis seemingly got their ideas of a dead so-called antigen in tuberculosis from the work of Vaughan, though he soon found that his non-poisonous sensitizing group would not immunize. One investigator went so far as to place on the market a so-called vaccine for tuberculosis, which I personally know will neither protect nor cure infected animals.

Deyche and Much have carried this work as applied to tuberculosis, a little further. They hydrolise and partly

split the tubercle bacillus by means of lactic acid, obtaining an emulsion which on standing, separates into two parts, a water soluble portion containing small amounts of soluble albumens and fat globules, and the precipitate, which contains most of the albumens and fats of the tubercle bacillus. This first part is apparently tuberculin; it gives the known tuberculin results, and Deyche and Much think that it represents the poisons of the tubercle bacillus. The albumens of the second portion, the precipitate, will not kill tuberculous G. pigs and will not protect animals against tubercle bacilli; also it can only sensitize to itself. The neutral fat alone does not produce antibodies, nor will it give reactions in animals treated with old tuberculin; but, however, a very striking result occurs if the neutral fat is mixed with the albumens of the precipitate, when it at once becomes potent to protect animals against tuberculous infections.

The albumens, neutral fats and fatty acids found in the second portion of their emulsion, Deyche and Much call partial antigens, for the reason that partial antibodies corresponding to each one, are found in the blood of tuberculous and tuberculous immune individuals and in the latter, sometimes in large amounts. These investigators have found enormous quantities of partial antibodies in pleural exudates, which is practically proven by the fact that every phthisiotherapist, who has profited by experience, recognizes that such exudates should be left alone, except in the presence of pressure symptoms, and then only partly removed, though personally, I have never been able to see any good results from the

introduction hypodermically of this exudate into the same individual or other patients affected with tuberculosis. Tuberculous patients who are very ill, do not have antibodies in their blood. Deyche and Much claim to have succeeded in immunizing guinea pigs against tuberculosis, by the use of their partial antigens. It remains to be seen if this immunity is more substantial and lasting than that obtained by von Behring, in calves, and Webb, in monkeys, using living bacilli. Certainly the earlier work was very disappointing. Whether or not, Deyche and Much's partial antigens are to furnish us with a more potent weapon against tuberculosis, remains to be seen. Much has recently been employed by the Turkish government to aid in stopping the ravages of tuberculosis among the Jews in Palestine and we should learn the results before long.

One thing makes me very skeptical of the practical utility of the partial antigen work. If nature could have learned to cure tuberculosis by means of antibodies, she would have done it long ago, and not been driven to what seems a purely local defence of building walls about it. No matter how perfect a tuberculo-protid immunity a tuberculosis patient has, his ultimate salvation depends upon his success in wall building. All the partial antigens, including tuberculin itself, may do good, in as much as they teach the body to tolerate or neutralize the tubercular protein.

Personally, however, I as yet see little light in handling the tubercle bacillus himself after he has once sat down on the job and gone to work.

He is armor coated with wax and possesses an enzyme much too potent for us to manage.

Nevertheless it is certain that all this work in protein analysis has already proved itself to be fully justified, in practical results, as well as additions to our knowledge, and will enable medicine to advance with seven-league boots during the next decade or two.

MANAGEMENT OF THE WOMAN AND CHILD DURING THE PUERPERIUM

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(Read before the Las Vegas Medical Society, April 23rd, 1914.)

In addressing the Medical Society on this subject, I do not expect to present anything particularly new or startling but it may be that in talking to you on this subject and detailing the course of treatment which I have tried to carry out in such cases, I may seem in some particulars to be somewhat revolutionary. If I can bring about a full and free discussion of the methods that I have pursued, I will have accomplished my object and I am sure that I will receive great benefit thereby. I shall not make any effort to talk on the pathology of the puerperium, but shall limit myself to the discussion of what is termed a normal period following a normal delivery, taking as a starting point the time immediately after delivery and after everything has been finished concerning the delivery itself.

The first point to be considered in discussing this subject is the posture of

the woman. Every woman after having brought a child into this world should for a period of at least 48 hours, remain prone upon the back; although I am afraid most of you will find this a very hard rule to put into effect, as even trained nurses are inclined to allow patients to turn first to one side and then to the other. After about 48 hours lying upon the back is not necessary and a change of position is a relief and also facilitates the "flow." The only danger that I have been able to ascertain from allowing the patient to turn from side to side would be the possibility of causing a central embolus by introducing air into the uterus. This condition I have never seen and I hope I never shall as it is almost certain to terminate fatally.

REST.

If the accoucheur will bear in mind that the woman who has gone through a labor has been doing very hard work for from 3 to 24 hours, or may be longer, he will at once realize the necessity for sleep and rest for the woman immediately after her labor is over. Fortunately most women are anxious to sleep for several hours and when there is no disposition to drowsiness, sleep should be induced, the most harmless methods being used first, as a cup of warm milk or hot cocoa or hot water, and the room darkened and the woman left alone to secure what rest she can. If these methods fail resort must be had to some of the hypnotics, sulfonal, trional, paraldehyde, bromide, and as a last resort, chloral or some of the derivatives of opium.

There is a good rule with reference to nursing the infant that should be impressed upon all parties having any connection whatsoever with the care

of the mother and child, viz.: nurse the baby at 11 p. m. and do not allow the little one in the same room with the mother until 5 a. m. the next morning. This is not only a good practice because of the prolonged rest the mother is able to obtain, but it is also a good measure for the child in that the digestive apparatus has quite a period of rest from its labors and duties. I have had mother and nurse repeatedly say to me that they did not believe that an infant could be made to conform to any such rule, but I have yet to see a case in which the infant after 4 or 5 nights of such a practice failed to accept the inevitable and conform his habits to suit those of the attending parties and be broken in as a good baby.

The cleansing of the woman is one of the things that will require careful attention on the part of the physician. If you are fortunate enough to have a trained nurse on the case, a few general directions will be all that it is necessary to give, but I have made it an invariable rule no matter who was taking care of the case, to instruct the nurse to bathe the vulva and external genitals as little as possible; not after each pad is changed as is so frequently the custom, but only when absolutely essential for the comfort of the patient. One point to be remembered is to always bathe from the vagina to the rectum, not from the rectum to the vagina.

During my service in the Columbia Hospital for Women, it was my good fortune to be connected with the institution at a time when the subject of the kind of bacteria causing the various types of fever during the puerperium was under discussion and the

pathologist of the institution, Dr. James Carroll, spent one year in working on this problem and the results were reported by Dr. Henry D. Fry. Their conclusions were about as follows:

First, that the vaginal discharges were inimical to pathogenic organisms.

Second, that febrile conditions coming on before or on the third day were due to streptococcus; fifth day febrile conditions were due to staphylococcus; seventh day due to colon bacillus infection or to a pseudo diphtheria bacillus and ninth day infections were almost invariably gonorrhoeal in origin. These conclusions are not absolutely infallible but I observed the cases upon which this work was done, covering some 200 obstetrical cases, and in almost every case the deductions were found to be correct.

One of the most distressing complications of a normal puerperium are after pains. These are usually more pronounced in multipara than in primipara. The reason for such a condition being more pronounced in multipara all authorities are agreed, is because of a lack of contractile power in a uterus that has contained many foetuses. Whenever these pains become annoying, always ascertain if they are due to retained blood clots within the uterine cavity. To do this grasp the fundus of the uterus firmly with the left hand and make firm, steady pressure in a downward and forward direction, squeezing the uterus with the fingers of the hand while making this pressure. This will dislodge any retained clots and the pain will usually cease. I have usually found a mixture of equal parts of fl. ex. of ergot and fl. ex. of hydrast. canaden. will assist in keeping the uterus empty of clots and in this

way prevent the severe after pains, although, owing to the action of these drugs upon the uterine muscle fibers, it has a tendency to cause slight after pains. If the pains persist after the clots are expelled it will be necessary for the comfort of the patient to give them one of the coal tar products as phenacetin or acetanilid in 3 to 5 grain doses every 3 or 4 hours.

It is very essential that the room which the woman occupies should be well ventilated. The temperature, except during such periods as it is necessary to uncover the woman, should not be above 65 degrees and if the temperature is kept at about this point the woman will thank the attending physician for the comfort she has had during that particular puerperium. All visitors should be excluded from the room for a period of at least 3 days and it is much better if they are not allowed to see the patient for the entire 10 days during which most women are content to remain in bed following child birth. Right here I wish to enter my protest to the 10 day period. I would much rather have a patient remain in bed for 3 weeks than for 10 days only, and I trust and hope that physicians generally will strive to keep such cases in bed for a more extended period than the customary 10 days. When the general public learns and realizes that all obstetrical cases are not alike and that some uteri are from 3 to 4 months in involuting and getting back to a normal condition, I believe they will cease to criticize the physician who keeps his patients in bed for from 2 to 3 weeks and in the course of time will condemn the physician who does not pursue such a course.

As stated before, a woman who has

just given birth to a child has been doing hard work for several hours and my belief is that her diet should be regulated according to the amount of work that she has been doing. I do not believe that any physician here would be satisfied with tea and toast after he has been driving the plow for 12 to 14 hours and I do not think that we should expect our patients to gain strength on such a diet. Now do not misunderstand me. I believe that for the first 12 hours, as the woman has not been eating much for some little time, that her diet should be light but at the same time it should be nutritious. After 12 hours on a light diet I instruct my patients to eat whatever they wish, excluding only such articles of diet as they know themselves to be harmful to them when in their usual state of health. Also I instruct them not to eat pork and beans or ham and cabbage while in bed. I have made it a practice to be very liberal along these lines and I have attributed a great deal of the well being of my patients subsequent to child birth to this very fact. Do not allow your patients to make gourmands out of themselves but insist upon their taking a sufficient amount of nourishment to regain their strength.

THE KIDNEYS AND BOWELS.

These two organs should be looked after with considerable care. I remember very distinctly one case in which for 3 days the mother suffered very acutely because of an acid condition of the urine, she not knowing but what that was an accompaniment of the child birth, made no mention of it and one day the physician noticing the red color of the urine, questioned her closely on this point and she then told him how

she had suffered. This condition, of course, was very promptly relieved and the woman was correspondingly grateful. The bladder should be emptied at least once in every 6 hours. I do not countenance using the catheter unless absolutely necessary, but when it does become necessary for such a procedure, do not hesitate to relieve your patient and make her as comfortable as you can. The bowels should be moved once a day, although occasionally I have allowed patients to go two days without a bowel movement. I do not commend this practice and would advise everyone to have the bowels move at least once a day. After the second day I have usually allowed my patients to use the chamber vessel instead of the bed pan as it is somewhat of a change for them and usually facilitates the flow.

As to the infant, as I stated before, it should be made regular in its habits. Until lactation takes place, the infant should be nursed once every 3 hours. When the flow of milk has become more or less established, the infant should be nursed every 2 hours except from 11 p. m. until 5 a. m. Lactation usually takes place on the third day although there is quite a difference in women in this particular. Some will have an abundance of milk on the second day, others will go as long as 5 days. There is usually a slight febrile disturbance accompanying lactation.

I have given along through this paper various little points as to the care of the child during the puerperium. The little one should be looked after upon each occasion that the physician calls at the house. The cord should be inspected and its condition carefully noted. My treatment of the

cord consists in using dry boracic powder upon a piece of sterilized gauze which is wrapped around the cord and retained in place by the abdominal band. If after 14 days the cord has not dried up and dropped off, it is snipped off with a pair of blunt pointed scissors and the abdomen is then dressed with a dry boracic powder and a silver dollar is placed in a piece of sterilized gauze and fastened within the abdominal binder to retain it in place over the umbilicus. This has a tendency to prevent any hernia upon undue exertion by the child.

The little one's bowels should be carefully watched and if the bowel movements do not clear up after two or three days a small pinch of brown sugar or a teaspoonful of olive oil should be given to facilitate the discharges. The urine should be noted and any tendency to retention should be promptly treated. The little one should be given water at frequent intervals. This is one point that I think should be watched very carefully as most mothers and nurses are inclined to allow the child to go thirsty.

One of the most frequent complications to the child is the jaundice neonatorium. This will usually clear up of its own accord in four or five days, but in order to facilitate the secretion of bile and its excretion, I frequently use one-tenth of a grain doses of calomel for five doses. This occasionally has to be repeated but very seldom. The baby should increase in weight after the first five days and if it does not show an increase after this period it is advisable to look the little one over carefully to ascertain if there is not something organically wrong with it.

As to the visits a physician should pay, I feel that three visits during the 10 days obstetrical period is not enough and it has been my custom to visit the patient within the first 24 hours after labor, then again on the third day, again on the sixth day and again on the tenth day. Upon visiting the patient, the first thing to be looked into is the condition of the lochia. If this is normal satisfy yourself that the uterus is in good shape and well contracted. Inquire about the bowel movements and the urine. If these are normal, inquire about the appetite and the condition as to sleep. If this is good, give any general directions that the conditions may require.

As I stated in the beginning, I had no intention in this paper of going into the pathology of the puerperium and with these few observations I will turn my methods over to you for discussion.

VINCENT'S ANGINA.

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Roberts-Banner Bldg., El Paso, Texas.

Vincent's Angina is defined in the dictionary as an ulcerating, sometimes membranous, infection of the tonsils; and for a long time little was known of its pathology and perhaps less of its treatment. In late years, especially since Vincent published his investigations of the bacteriology of this infection, considerable attention has been given to this disease by bacteriologists and so now it is well established that the disease is the result of the work of two organisms, a fusiform bacillus and a spirocheta, now generally called Vincent's Spirocheta. Some observers have held the opinion that the two organisms are simply two different

forms, or stages, of development of one and the same organism. Whether or not this is true is somewhat aside from the present subject, but the fact that these two forms of organisms found together constitute the characteristic diagnostic feature is an important point to be remembered. Either one of these organisms, or at least organisms identical in appearance with either one of these, may be found alone in other conditions, but finding these two together makes the diagnosis sure.

The particular object of this essay is to call attention to the fact that Vincent's Angina is not confined to the tonsils, and that it may attack any of the tissues from the lips back to the pharynx and perhaps even farther internally, and that the gums are very often the seat of an attack. During the past two years, I have seen about a dozen cases in which either the gums alone or the gums and adjacent tissue such as the cheek and tongue were involved. Some of these cases have been acute and some chronic, but all of them have been severe; causing the patient a great deal of pain, inconvenience and loss of time from work. If these cases are properly diagnosed in the beginning and correct treatment applied, they can be quickly controlled; but the treatment must be continued for some time to prevent relapses.

A patient presenting with this disease will complain generally of intense, aching pain of the teeth and jaws. This has been the most prominent and constant symptom in about twelve cases that I have treated. As a rule he will complain also of the constant presence of blood in the mouth. He will also frequently tell you that he has exhausted his knowledge of household reme-

ues without any relief whatever. Upon examination, the first thing noticed is apt to be an awful fetor of the breath that is likely to stagger you if you get a good, strong and unexpected whiff. In some cases this fetor is so strong as to fill the room and you can make a tentative diagnosis without hardly looking at the patient. In other cases this fetor is not nearly so marked, though I have not seen a case in which it was not present to some extent. This odor seems to be a characteristic stench, —once smelled never to be forgotten. There are several causes of fetid breath and prominent among them is pyorrhea, the odor from which is often nauseating, but there is a distinctive feature about the fetor of Vincent's Angina that nothing else seems ever to approach.

Upon looking into the mouth you may expect to see anything from one or two small crater-like ulcers of a grayish color to any number of either single or coalescing ulcers of irregular shape and angry look. These ulcers in the mouth seem to start most often at the summit of a papilla of the gum between two teeth and to spread deeply into the tooth-sockets much more rapidly than over the gum surface. These ulcers are covered with a tough, grayish membrane of necrotic tissue which may be easily scraped off, except that it has a tendency to cling about the edges, leaving an intensely red and bleeding surface. After removal a new membrane quickly forms, sometimes in an hour or two. The rapidity with which this membrane forms seems to be an indication of the severity of an attack. The grayish color of the ulcer is often tinged with yellow or green, which is due probably to the

accidental presence of saphrophytes.

The onset of this disease is often very sudden and severe. A patient may retire at night apparently in his usual health and awake, after a somewhat restless night, with an excruciating pain in his jaws, with blood oozing from his lips and with a considerable area of gum tissue stripped from the bone by a foul and penetrating ulcer. More often, however, the onset is not so sudden, the disease requiring two or three days to reach such a condition that the patient takes alarm for his future welfare. Whether the onset be rapid or comparatively slow, the ulcers quickly penetrate into the tissue between the teeth, causing extensive destruction so that one, or several, or even all the teeth become very loose and unless the disease is promptly checked, slough out or become so hopelessly damaged as to require extraction. A striking peculiarity of this condition is that there is but very little swelling around the ulcer and that the tissue adjacent to the ulcers appears normal; and as this is an intensely infectious disease, we would expect to find a considerable lymphatic enlargement, while as a matter of fact I have never seen the glands more than slightly enlarged and in some cases not perceptibly so at all.

Some of the attacks of this disease seem, after two or three weeks, to lapse into a sort of chronic condition in which the ulcers disappear and the intensity of the symptoms abate, leaving no signs except some soreness and looseness of the teeth and some pockets about the teeth which resemble somewhat pyorrhea pockets except that the edges instead of being soft, spongy, swollen and moist with more or less

pus in them are hard, tense, dry and turned in as if drawn down by cicatrical tissue, as they probably are. These pockets, which are especially liable to occur near some mechanical irritant about the teeth such as a cavity, a bit of calculus, or an unfinished filling or crown, may harbor the germs of the disease for a long period and serve as a breeding ground from which future and recurring outbreaks may take place. A severe attack seems to go from bad to worse with increase of pain, inability to eat, rise of temperature and spreading of the ulcers until the condition of the patient may become quite alarming; and there is no telling where such a case might end if allowed to progress, but probably like a case of cancrumoris to which it is doubtless close akin, would gather virulence as it went and result in death.

In the treatment of this disease, of course, the general condition, especially the bowels, must receive prompt attention first and then the local condition. Until recently, when I had the good fortune to stumble upon a remedy that has so far proved almost a specific in handling these cases, great difficulty was experienced in getting them under control. Almost every possible anti-septic and stimulating lotion was used as a mouth wash with very unsatisfactory results from all of them. The most curative results I had by cleaning the ulcer thoroughly with peroxide of hydrogen on a swab and then painting with tincture of iodine. Even with this treatment the ulcers were often exceedingly and discouragingly slow to yield and the pain remained so severe as often to require an anodyne. About two years ago I was making

some tests with sodium perborate when a case of Vincent's Angina presented itself. From what little I could learn about this disease at that time I thought perhaps sodium perborate would be a proper remedy and decided to try it. You cannot imagine how happy I was, after the long and tedious contests I had had with previous cases, to find the course of this one arrested at once and the pain banished as if by magic. The results seemed too good to be true, and not until I had had a similar experience with several cases of my own, and heard the report of the same results in some cases in the hands of my friends, would I believe it. I remember distinctly the second case in which it was used. The patient had neither slept nor eaten for three days so intense was his suffering. The usual remedies such as would be applied in stomatitis had been given him without result. Not only were his gums covered all around, above and below but the cheeks, too, were involved. On the left side there was a patch as big as a silver dollar. His mouth was thoroughly washed with sodium perborate solution driven with a compressed air sprayer and he was given some of the powder to use as a mouth wash. When he reported the next day he said that fifteen minutes after leaving the office he was asleep on the street car going back to the Post. From this until the last time I saw him, about a week later, he remained free from pain and the ulcers healed rapidly.

The micro-organismal combination causing the disease has several times been reported as anaerobic, and anaerobic it no doubt it. If so, the action

of sodium perborate becomes easily explained. Sodium perborate when added to water, decomposes and liberates peroxide of hydrogen which in turn gives up oxygen that destroys the micro-organisms. Naturally, after the acute symptoms are checked, it is essential, to a complete cure, for a dentist to go thoroughly over all the teeth, removing tartar, sterilizing and filling all carious cavities, and completely removing every rough place that might serve as a shelter for a colony of bacteria.

As a result of the destruction of the tissue between the teeth, pockets are formed which in proportion to their depth remain a constant source of annoyance to the sufferer and a constant pick-up for food particles. Unfortunately these pockets cannot be completely eradicated and so they leave the way open for infection about the tooth-roots, which infection is almost sure to take place sooner or later, and having taken place, to become chronic, and end in a pyorrhea alveolaris which soon ends the tooth. Most of my patients with Vincent's Angina have lost at least one tooth, and some of them have lost several already, and what is worse, will lose more as the alveolar process about some of the teeth was so badly damaged as not long to be able to stand the constant drains of mastication. The patient should continue using a mouth wash made by adding a teaspoonful of sodium perborate to a half glass of water in connection with his usual dental toilet for six months to thoroughly rid himself of the infection, otherwise relapses will probably occur.

FINAL REPORT ON EPIDEMIC OF TYPHUS FEVER AMONG THE NAVAJO INDIANS AT CANONCITO COJO.

LEWIS C. DAY, M. D.,
Albuquerque, N. M.

(Completing report as published in
New Mexico Medical Journal, May,
1914.—Ed.)

On March 18th I read a paper before the Bernalillo County Medical Society, in which I reported twenty-four cases of typhus fever among the Navajo Indians at Canoncito Cojo. At that time thirteen had recovered, three had died and eight were then sick.

On March 25th I again visited the settlement and found that one more child had died of the disease and that two more cases had developed among those quarantined. One was a young man, who on the 14th visited the camp for the first time so far as I was able to ascertain, for the purpose of acting as pall bearer for one who had died of the disease on that day. I placed him in quarantine on the 15th, then perfectly well so far as I could see, but on the 25th he had a well marked case and had been ill for about five days. The other case was a middle-aged woman who had acted as wet nurse for children whose mothers were too sick to nurse them. Children had nursed her breast when ill with the disease and she had been constantly with these people, yet she was among the last to fall ill. She had a nursing baby of her own and two other small children. These three did not contract the disease.

At this time I learned of another

young man not in quarantine, who was ill. I visited him and found that he was ill with this disease in the midst of a family of twelve other people.

How he had become infected was uncertain. His home was near the now vacant camps in which the disease first appeared. He may have become infected from visiting these camps and he may have visited the quarantine camp before we had our guard to keep visitors away. At any rate he and his twelve associates were immediately taken to our quarantine camp and that day, assisted by Superintendent P. T. Lonergan and Jose Platero, our Indian policeman, we began our war of extermination against the vermin.

We clipped the hair from the heads of every Indian who had had the disease or who was then exposed, removed all their clothing and covered their entire bodies with a mixture of equal parts of coil oil and lard in which there was mixed a considerable quantity of sulphur. New clothing was furnished. The old clothing which was of any value was boiled. Sheep skins which they use for bedding were either dipped in coil oil or a strong solution of bichloride of mercury. Their previous quarters were destroyed by fire and new ones furnished. At this time three patients were in the height of the disease in the semi-delirious typhoid state described in my previous report. The others were nearly well and all except one man were able to come off the cliff on which they were isolated for the cleaning up process. We now had 38 people under quarantine, fifteen of whom had not had the disease. All so far as we knew were free from vermin.

My next visit to the camp was April 13th. No new cases had developed. Even the three children who had slept under the same blanket with their mother while she was ill with the disease, had escaped, as had likewise the family of the young man last discovered and placed in quarantine. His aged father and mother had nursed him from the beginning. Both were more or less feeble, but both had escaped infection.

The sick had all recovered. In fact four days previously the woman so sick at my last visit had attempted to escape from the camp and had gotten about $\frac{1}{4}$ of a mile away with nearly 75 pounds of bedding and food on her back. I now repeated my previous procedure so far as new or clean clothing was concerned, boiling or sterilizing everything as before, and again covering their bodies with coal oil, lard and sulphur mixture. I now discharged them from quarantine and destroyed every camp in which there had ever been any sickness of this character.

I last heard from the settlement May 11th. No one was sick and there have been no cases since I raised the quarantine April 25th.

The total number of cases was twenty-seven—eleven adults and sixteen children. There were four deaths, two adults and two children. Twelve of these were males and fifteen females.

I have discovered nothing different from my previous report concerning the cause of the disease, except that all cases did not seem to end by crisis, at least some were quite ill for some time following a temperature drop to normal. In fact the young man whom

I first placed in quarantine on March 26th had a normal temperature in the morning of the 28th. He had been ill since about the 13th, yet I found him still weak when I raised the quarantine April 15th, while the two other cases still having fever on March 28th were apparently as well as ever on April 15th.

The remarkable escape of the three small children as well as the old man and woman are worthy of note. I believe this may point to the time of infection, being late in the disease and of course after all vermin were destroyed. There were no means of transmission. This theory may be upheld by the fact that the first case was dead before the second case developed. My visits were so far apart because of the distance and bad roads to travel over that my observations were necessarily crude and incomplete.

The source of infection was possibly an Old Mexico Mexican who visited the settlement a short time before the first case. He was ill and lay on some sheep skins belonging to the old woman first taken with the disease. After a few hours he went on—where, no one knows. It is merely a conjecture that he was the source.

Abstracts

Early Diagnosis in Tuberculosis.

R. S. Lavenson, Los Angeles, Cal. (Journal A. M. A., April 18), criticises the neglect on the part of physicians of the early diagnosis of tuberculosis. Having had under observation a number of patients undergoing sanatorium treatment, he was impressed with the frequency with which the diagnosis was made only long after the patient had presented himself to

the physician with suggestive symptoms. In only twelve cases out of a total of sixty-six was the diagnosis made immediately or within a few weeks. In fifty-four it had been delayed from three months to five years. He summarizes the records of the examinations of these fifty-four patients by seventy-two different physicians. In 13.8 per cent neither physical nor sputum examination was made or the temperature taken. In 52.7 per cent only a physical examination was made. In 12.8 per cent a physical examination was made and the temperature taken and no more. In 8.3 per cent, the temperature alone was taken; in 4.1 a physical examination was made and the sputum examined but the temperature was not taken. In 5.5 per cent the patient complained of the larynx and had only a laryngeal examination made. One patient had only a sputum examination and in one instance in which the diagnosis was not made, all three methods were employed. There is no doubt, he says, that in a fairly large percentage a competent clinician or specialist could detect early tuberculosis by the physical examination alone but he does not think this is true of the average practitioner who, perhaps, cannot be held entirely to blame for his lack of diagnostic skill considering the slight changes that characterize the early stages, but Lavenson holds that he must either perfect himself in physical diagnosis or call in skilled assistance. Moreover in some of the instances there was a lack of thoroughness in the physical examination which was made through the clothing and without instrumental aid. A positive sputum examination establishes the diagnosis but a negative test has not a like significance and Lavenson thinks there should be more laryngological examinations made. In all these regards he advocates reform. He

also criticizes the undue neglect of the significance of hemorrhage which is rarely due to any other cause. It is possible in some cases that the physician has recognized the disease but through mistaken kindness or dislike to disturb the patient's mental condition, had not informed him of the facts. Lavenson believes there is no justification for this in any case. The author was himself a victim of tuberculosis and died July 6, 1913, as stated in a note.

Syphilis as a Public Health Question.

H. J. Nichols, Washington, D. C. (Journal A. M. A., May 16, 1914), after remarking on the advances made in our knowledge of syphilis during the last decade, which he reviews, says that they have come not from the clinic, but from the laboratory. We know now that we have effectual means for checking, if not fully controlling, this disease and popular interest in the matter is increasing. The extreme medical position is, of course, that syphilis should be attacked in the same way as other infectious diseases, namely, by detection and removal of the sources of infection, early diagnosis, isolation, prompt treatment and various methods of protection. This position, however, is attacked by many social reformers. They say that "the medical program is a failure in practice and that it tends to legalize immorality." In answer to this first objection, Nichols says that, from the purely scientific view, we are in a good position to control syphilis, provided we could carry out preventive measures thoroughly. Syphilis, however, is on a different standing from the other chief infections. "The endemic center of the disease is . . . in the irregular sexual life of the race and a direct medical attack on the social side of the problem is out of the question." It will be a long

day before a sanitary map of the town will be made with syphilis cases pointed out and placards used for infected houses. The subject of syphilis in its relation to public health is not purely a medical one or merely a question of education and reform. We must find out what we can do as physicians and do the best we can. Nichols gives a number of statistics as regards the prevalence of the disease. Most of these are from hospitals, but the research is now being extended into the general population. Even if we can obtain an accurate knowledge of the prevalence of syphilis in a special class, as, for example, in the Army, we cannot fully solve the problem by repressive measures, but a great deal can be done, and as regards the question of treatment, city governments and hospitals can do a great deal. The position of most hospitals toward syphilis needs revision. Most hospitals refuse to admit syphilitics, but at the same time they admit the latent cases and other incurable conditions due to existing syphilis, thus throwing away their chances for doing actual good. With our present sure methods of diagnosis and surer specific remedies a great deal of good can be done by properly directed effort. As regards a standard of cure, he gives that used in the Army, where they have unusual opportunities for following up cases. The Army standard is as follows: "One year without treatment, without any suspicious clinical symptoms, with several negative Wassermann reactions and no positive ones, and at the end of the year a negative provocative Wassermann reaction or negative luetic test." These requirements fulfilled, the case is considered closed. As yet about one hundred have met the conditions out of several thousand altogether, but the proportion is increasing. The fol-

low-up system used in the tuberculosis campaign and in social service and the establishment of night clinics may aid in handling the situation among civilians. In prophylaxis some hygienic measures are of slight avail, such as the disuse of the common towel and drinking-cup and a campaign against promiscuous kissing. Medical students are in need of instructions in regard to prevention, as it is a special risk to the medical profession. A more effective measure is along the line of negative eugenics, and that is, the prevention of infection of families by marriage. The standard for marriage, in Nichols' opinion, should be the same as that mentioned above as used in the Army. The precise time and place for preventive measures is after contact with infected individuals with the calomel treatment of Metchnikoff. Nichols summarizes his views as follows: "1. The application of Koch's etiologic method for the study of infectious diseases, to syphilis, has greatly increased our knowledge of the disease during the last ten years. 2. A strictly medical campaign against syphilis is neither practicable nor desirable. A modified medical campaign both practical and necessary. 3. The prevalence of the disease is still largely a matter of conjecture, and information on this point is to be obtained largely by Wassermann reaction surveys, carried out by municipal and hospital laboratories. 4. The most hopeful outcome of all the recent work on syphilis is the possibility of early diagnosis and radical cure. This possibility is still largely unrealized on account of lack of facilities in dispensaries and hospitals. 5. Our ideas about the efficiency of treatment and about a standard of cure are much more definite than heretofore, as a result of the application of etiologic tests.

6. Syphilis in most cases is a preventable disease, and this fact is an additional warrant for penalizing those who contract it."

Blood-Pressure in Pneumonia.

A. A. Howell, Philadelphia (Journal A. M. A., April 18), says that the significance of the Gibson pulse-blood-pressure ratio in its relation to prognosis and treatment of pneumonia has been fully shown. This, as stated by its originator, is that so long as the blood-pressure expressed in millimeters of mercury remains well above the pulse-rate per minute the circulatory condition may be considered satisfactory and the prognosis correspondingly favorable. Should the reverse occur, that is, should the pulse rise above the systolic blood-pressure, the case is serious. There are certain apparent exceptions to the rule, as in the very high pressure of arteriosclerosis and the habitual relaxed circulation of certain persons and some cases occasionally deviating between these extremes. In all these exceptions, however, Gibson's rule, that pressure appreciably below normal in pneumonia is an evil omen, holds true, taking as normal the customary blood-pressure of the individual and not the customary 120 to 130 mm. To make the Gibson pulse-ratio a still more valuable guide Howell urges the attempt to estimate mentally in every case just what the blood-pressure ratio was prior to the onset of the disease in the patient and to this he would add the noting of the auscultatory phases—the so-called auscultatory sequence—the sounds heard with the stethoscope placed over the brachial artery below the sphygmomanometer cuff, as the column of mercury is gradually allowed to fall in passing downward from the systolic pressure. "The first sound heard after obliteration of the pulse is a clear-cut tap, and indicates the point of

systolic pressure. As the column of mercury falls other similar taps are heard. These in toto constitute the first phase. A sudden change from taps to succession of murmurs marks the passage of first into second phase. The third phase is instituted on a reappearance of clear tapping sounds, and, as the column of mercury is allowed to gently sink, gives way to a succession of dull, muffled taps—the fourth phase. At the cessation of these sounds the mercury column continues its fall to the zero mark, unaccompanied by auscultatory phenomena. This absence of sound has been called by some the fifth phase." The proper normal allotment of space for each of these phases has been worked out on the percentage basis, rather too elaborately, Howell thinks. We should learn them and accustom ourselves to them rather than devote ourselves too closely to figures, and notice whether they are present or absent, or good or bad, just as you would in taking the sounds of the heart. The second phase is the one most quickly lost and its presence therefore is of good import. It is principally in the general character and duration of a clear tap of the third phase that we get information as to the circulatory efficiency. In pneumonia he takes all clear tapping sounds as of good import and weak muffled sounds as bad, especially if arrhythmia is added. Changes in the sequence can occur without changes in the Gibson ratio and this adds to their importance. Noticing them is one of the little things we cannot afford to miss in pneumonia cases.

Palliative Effect of Artificial Pneumothorax in Treatment of Pulmonary Tuberculosis.

Dr. William C. Voorsanger, San Francisco (The Journal A. M. A., May 9, 1914)

reviews literature on the subject of artificial pneumothorax and reports three cases of his own, all different in type, progressive, advanced and hopeless, which were selected for lung compression to relieve the cough and expectoration and not with a hope of arresting it. In the former sense he thinks, the procedure must be looked on as successful. He therefore adds to the indications which were given for lung compression the following: "Hopelessly advanced cases in which after careful examination it is ascertained that cough and expectoration is being produced from a large cavity in one lung even though the other is badly infiltrated." His cases number fourteen and have been selected from those which, after a fair test, did not respond to other well-tried methods of treatment. All of his cases were, whenever possible, controlled by roentgenograms before operation. All compressions were made by the Forlanini method with 0.5 per cent novocain anesthesia. He believes that artificial pneumothorax can be successfully employed outside of the hospital or sanatorium, if the technic employed is perfect.

Local Anesthesia.

J. J. King, New York (Journal A. M. A., May 30, 1914), describes a method of local anesthesia which he has found most satisfactory for resection of the nasal septum. Half an hour before he begins, the patient takes by mouth 1-150th grain of scopolamin hydromid to allay nervousness and as the therapeutic antagonist to cocaine. Then he applies with a cotton wound applicator a 20 per cent solution of cocaine hydrochlorid over every part of the mucous membrane of the septum and repeats it immediately. After the second cocaine application he makes a similar one

of a 1-1,000 epinephrin solution and following this an injection under the septum perichondrium and periosteum on each side of from 8 to 10 cc. of a sterile salt solution to which 5 minims of a 1:1,000 epinephrin solution has been added immediately before the injection. This completes the anesthesia and infiltrates every portion of the septum membrane, blocks off the nerves, prevents shock and renders the operation practically bloodless. It also aids in elevating the perichondrium from the cartilage and makes the dissection easy. He uses only 5 minims of epinephrin solution because this does not exceed the physiologic dose of the hypodermic injection and he has found it in his experience sufficient to render the field bloodless without producing toxic symptoms.

Radium Treatment of Cutaneous Epitheliomas by Single or Massive Doses.

Dr. A. Schuyler Clark, New York (The Journal A. M. A., May 9, 1914) reviews literature on the subject of radium treatment on cutaneous epitheliomas by massive or single doses and reports twenty-two cases of his own. He is convinced that there are infinitely smaller number of recurrences after the single or massive dose method. His exposure varied from twelve or fifteen to twenty-four hours, depending on the depth and nature of the lesion. He gave as long a single exposure as compatible with a return of the included healthy cells to normal, or, at least, a large part of them, this being of considerable importance from a cosmetic point of view. He thinks that radium is an efficient means to attack lesions and that the single or massive dose will prove to be the method of choice, as it is easier to

estimate the single or massive dose because it is a stable remedy emitting a constant amount of rays, which is not the case with Roentgen rays, even with pastilles. Its ease of application, comparative painlessness, even in the inflammatory stage, its harmless appearance and cosmetic results recommend it to the patient.

An Investigation of the Causes of Failure In Cow-pox Vaccination.

Dr. John Nivison Force, Berkeley, Cal. (The Journal A. M. A., May 9, 1914), records an investigation of the causes of the failure in the cow-pox vaccination of persons entering the University of California with no visible evidence of a previous vaccinia. He reports the technic employed, the investigation of the causes of failure under three heads: (1) the development of a uniform technic, (2) investigation of the virus and (3) investigation of alleged immunity against cow-pox. Under 1, the preparation, scarification, application of virus, dressing and subsequent care and the records are given. Under 2, the records of the virus from New York Vaccine Laboratory and the local vaccine are given. Under 3, the tests of immunity are given with the application of the test and a case report. Force concludes that any typical reaction against vaccine is an evidence of immunity, that the technic described is an exact aid to revaccination and that "physicians" certificates of immunity should be based on an observed reaction and not on the failure of two or three vaccinations, unobserved until the fifth day after the insertion. These "failures" may not have been due to immunity but to inert virus."

New and Nonofficial Remedies.

Since publication of New and Nonofficial Remedies, 1914, the following articles have been accepted for inclusion with "N. N. R." Those accepted during the current month are made prominent by the use of capitals:

H. M. Alexander and Co.—Normal Horse Serum; Typhoid Vaccine, Immunizing.

Antiseptic Supply Co.—Causticks; Caustick Applicators; Cupristicks, Stypticks.

Arlington Chemical Co.—ARLCO URE-EASE.

Comar and Cie.—ELECTRARGOL.

Farbwerke Hoechst Co.—Amphotropin; Erepton.

Fairchild Bros. and Foster.—Trypsin.

Franco American Ferment Co.—LACTOBACILLINE TABLETS; LACTOBACILLINE LIQUIDE, CULTURE A; LACTOBACILLINE LIQUIDE, CULTURE D; LACTOBACILLINE LIQUIDE, INFANT CULTURE; LACTOBACILLINE GLYCOGENE TABLETS; LACTOBACILLINE (GLYCOGENE LIQUIDE); LACTOBACILLINE MILK TABLETS; LACTOBACILLINE MILK FERMENT; LACTOBACILLINE SUSPENSION.

Hoffmann-LaRoche Chemical Works.—Thiool; Syrup Thiool, Roche; Thiool Tablets.

Hynson, Westcott and Co.—Phenolsulphonephthalein, H. W. & Co.; Phenolsulphonephthalein Ampules, H. W. and Co.

Merck and Co.—Cerolin.

H. K. Mulford Co.—Acne Serobacterin; Anti-Anthrax Serum, Mulford; Antistrep-toococcus Serum Scarlatina, Mulford; Coli Serobacterin; CULTURE OF BULGARIAN BACILLUS, MULFORD; Disinfectant Krelos, Mulford; Neisser Serobacterin; Pneumo Serobacterin; Salicylos; Scarlatina Strepto Serobacterin; Staphylo-Serobacterin; Straphylo Acne Serobacterin; Strepto-Serobacterin; Typho-Serobacterin.

Riedel and Co.—New Bornyval.

Reinschild Chemical Co.—Phenolphthalein Agar.

E. R. Squibb and Sons.—Sodium Biphosphate, Squibb; Tetanus Antitoxin, Squibb; TETANUS ANTITOXIN, SQUIBB, 5,000 UNITS.

Wm. R. Hubbert.—Diphtheric Antitoxin, Hubbert. Having been advised that Diphtheric Antitoxin, Hubbert was no longer on the market the Council directed that it be omitted from future editions of New and Nonofficial Remedies.

Riedel and Co.—Hexalet. At the request of the manufacturer the name Hexal in New and Nonofficial Remedies has been changed to Hexalet.

W. A. PUCKNER, Secretary,
Council on Pharmacy and Chemistry.

New and Nonofficial Remedies.

Since publication of New and Nonofficial Remedies, 1914, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies:"

Sodium Biphosphate, Squibb.—This non-proprietary form of sodium acid phosphate has been accepted for inclusion with New and Nonofficial Remedies. E. R. Squibb and Sons, New York (Jour. A. M. A., May 2, 1914, p. 1401).

Normal Horse Serum with Chloroform as a Preservative.—Marketed in vials, each containing 50 cc. H. M. Alexander and Co., Marietta, Pa.

Normal Horse Serum without Preservative.—Marketed in vials, each containing 50 cc. H. M. Alexander and Co., Marietta, Pa. (Jour. A. M. A., May 2, 1914, p. 1401).

Erepton.—A meat product consisting largely of the amino-acids produced by the digestion of meat. Erepton is said to

be useful in cases in which it is necessary to substitute a perfectly digested food for the product of natural digestion in cases of gastric or intestinal indigestion and for the purposes of rectal alimentation. Farbwerke Hoechst Co., New York (Jour. A. M. A., May 16, 1914, p. 1559).

Acne Serobacterin, Mulford.—This is a sensitized acne vaccine. H. K. Mulford Co., Philadelphia, Pa.

Coli Serobacterin, Mulford.—This is a sensitized coli vaccine. H. K. Mulford Co., Philadelphia, Pa.

Neisser Serobacterin, Mulford.—This is a sensitized gonococceic vaccine. H. K. Mulford Co., Philadelphia, Pa.

Pneumo Serobacterin, Mulford.—This is a sensitized pneumococceic vaccine. H. K. Mulford Co., Philadelphia, Pa.

Staphylo Acne Serobacterin, Mulford.—This is a sensitized staphylo acne vaccine. H. K. Mulford Co., Philadelphia, Pa. (Jour. A. M. A., May 16, 1914, p. 1559).

New Bornyval.—New bornyval is borneol isovaleryl glycolate, the isovaleryl glycolic acid ester of borneol. Being more resistant to the gastric fluids than bornyval, it passes the stomach unchanged and is said therefore to be less irritating than bornyval. Its properties are similar to those of bornyval and other valerian preparations. New bornyval is an almost tasteless and odorless liquid, insoluble in water. It is also sold in the form of Bornyval Pearls, each containing 4 minims of New Bornyval. Riedel and Co., New York (Jour. A. M. A., May 23, 1914, p. 1637).

Propaganda for Reform.

Valentine's Meat Juice.—Four years ago an examination by the Council on Pharmacy and Chemistry showed that Valentine's Meat Juice was not a meat juice, but had the character of a meat extract instead, while on the basis of the

claim that it was a meat juice extravagant assertions as to its nutritive value were made. The product being a meat extract, was practically devoid of nutrient qualities. As Valentine's Meat Juice is still widely advertised the Council deemed a re-examination important. This re-examination shows that in general it has the composition now as then, and that the same unwarranted claims are still made for it (Jour. A. M. A., May 2, 1914, p. 1419).

Lower's Germen Prescription. — This "consumption cure," hailing from Marion, Ohio, is sold under the claims: "The most Deadly Foe to the Great White Plague—TUBERCULOSIS—Science Has Yet Produced," "it takes from 15 to 30 large bottles of Germen Prescription to remove the tuberculosis poison," each bottle costing the victim two dollars. The composition of the nostrum is purported to be (in bastard Latin): "Herb Menthaepeperitae, Herb Marrubium Vulgarae, Ex Balsanum Tolotonum, Herb Hydrastis Canadensis, Scillae Maratinia, Mentholis, Ex Virginiana Prunus, Ex Capsici Fastiagatum." An examination made in the A. M. A. Chemical Laboratory indicates that whatever therapeutic virtues this peppermint-horehound-cayenne pepper-menthol mixture possesses are due to the 1.83 gm. menthol per 100 cc. which it contained. About the only effect produced by the mixture will be to derange the digestion of the person taking it. (Jour. A. M. A., May 2, 1914, p. 1418).

Pituitary Extract.—The use of pituitary extract as an oxytoxic must be considered in the experimental stage. A large number of cases have been reported in which untoward effects from the use of various pituitary extracts (including pituitrin) were obtained. (Jour. A. M. A., May 2, 1914, p. 1420).

Pancreatin.—Long and Bubleman report that mere traces of hydrochloric acid will destroy the ptyalin of pancreatin, that pancreatin of commerce—which often is not pancreatin but merely the dried pancreas gland—is practically devoid of lipase, the fat digesting ferment, and that its tryptic ferment is likely to be destroyed by the action of the pepsin and hydrochloric acid during its passage through the stomach. (Arch. Int. Med., Feb. 1914, p. 314).

The Okola Laboratory.—The postmaster general has issued a fraud order against the Okola Laboratory, Inc., Rochester, N. Y., which sold a mail order treatment for weak eyes. The "laboratory" advertised that Dr. John L. Corish "an able New York physician" and "an eminent medical man" had discovered a marvelous treatment for affections of the eye by which those who were wearing glasses or who should have been wearing glasses would do without them. The treatment consisted of three parts. Okola was the name of some tablets proven by the government to consist of baking soda and boric acid. The Okolator was a metal inhaler containing cotton moistened with a volatile liquid. The Okolizers were printed cards giving instructions for rubbing the eyes, etc. (Jour. A. M. A., May 9, 1914, p. 1492).

Pa-pay-ans (Bell) now Bell-ans.—Bell and Company announce that Pa-pay-ans (Bell) is in the future to be known as Bell-ans. An examination of Pa-pay-ans (Bell) made by the Council on Pharmacy and Chemistry having failed to demonstrate the presence of papain, it is probable that the change of name was decided on to escape prosecution for misbranding. (Jour. A. M. A., May 9, 1914, p. 1492).

Bromidia (Battle and Co.).—A report of the Council on Pharmacy and Chemistry points out that while the name suggests

bromid, Bromidia is essentially a chloral preparation. This nostrum illustrates the need of the Council's rule under which recognition is refused to pharmaceutical mixtures whose name does not indicate their most potent ingredients. While the chloral content of Bromidia has been given considerable publicity, yet the preparation is used both by physicians and the public, without due consideration of its potent ingredient, as attested by the fatal results and the habit-formation which have resulted from its use. The Bromidia advertising propaganda first admits the presence of chloral, then it is argued that in Bromidia the evil effects of chloral are eliminated and in the end the impression is left that Bromidia is practically innocuous and may be given even in cases of typhoid and to children. (Jour. A. M. A., May 16, 1914, p. 1573.)

Monte Cristo Rum and Quinin for the Hair.—The government chemists found this preparation to contain ethyl alcohol, wood alcohol and a trace of quinin. The manufacturers were found guilty of adulteration and misbranding the preparation. (Jour. A. M. A., May 16, 1914, p. 1575).

Pepsin Magen Bitters.—The government chemists found this preparation to contain only a trace of pepsin. The preparation was declared misbranded. (Jour. A. M. A., May 16, 1914, p. 1575).

Bavarian Malt Extract.—The government chemists proved that this was not a malt extract coming from Bavaria, but instead was beer. The product was declared misbranded. (Jour. A. M. A., May 16, 1914, p. 1575).

Thiocol Re-admitted to N. N. R.—In 1913 the Council on Pharmacy and Chemistry directed the deletion from New and Nonofficial Remedies of Thiocol and Syrup Thiocol, Roche, because a preparation called Sirolin, containing Thiocol as its

effective component and practically the same as Syrup Thiocol, Roche was being advertised to the public. The Hoffman-LaRoche Chemical Works having furnished assurance that the public exploitation of Sirolin has been discontinued, the Council voted that Thiocol and Syrup Thiocol, Roche be restored to New and Nonofficial Remedies. (Jour. A. M. A., May 23, 1914, p. 1637.)

Antimeningitis Serum.—The untoward or fatal effects sometimes following the use of antimeningitis serum are probably due to the toxic action of the preservative contained in it or to increased intracranial tension due to its administration. The technique of its employment should be improved rather than its use abandoned. The dangers which may arise from its use are not to be feared as much as the disease itself. (Jour. A. M. A., May 23, 1914, p. 1661.)

Liquid Petrolatum or "Russian Mineral Oil."—A report of the Council on Pharmacy and Chemistry points out that petroleum oil was used as a medicine by the ancients and that the product "liquid petrolatum" is now on the market under a host of proprietary names and is official in most pharmacopoeias. It was at one time used in the treatment of tuberculosis and as an adulterant of fats and oils on the assumption that it was assimilable. It is now known to pass the system unchanged and has recently been highly lauded as a particularly harmless laxative in the treatment of habitual constipation. As the U. S. P. definition of liquid petrolatum permits the use of rather widely varying products and as there is some difference of opinion whether a light or a heavy oil is preferable, the Council recommends that physicians desiring the water white, non-fluorescent (Russian) mineral oil use the term petrolatum liquidum grave

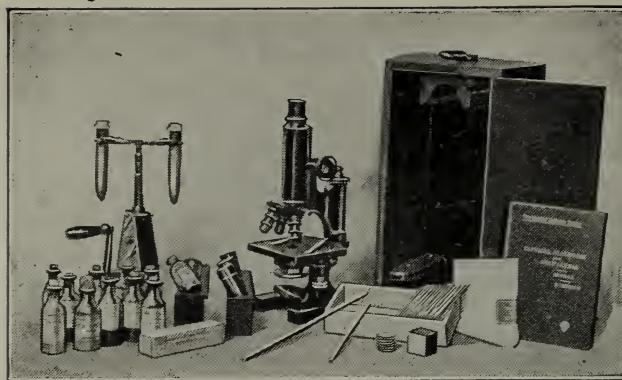
or paraffinum liquidum, B. P. if the heavy product preferred by Sir F. Arbuthnot Lane is desired and petrolatum liquidum laeve if the light variety is desired. (Jour. A. M. A., May 30, 1914, p. 1740.)

Cirkulon.—The device "Pulsocon" which Gerald Macauro has exploited widely in England, is sold in this country as "Cirkulon" by the "Cirkulon Institute" of Kansas City, Mo. Gerald Macauro, according to the Associated Press, has been sentenced in France to serve a term of three years' imprisonment on a charge of fraud. (Jour. A. M. A., May 30, 1914, p. 1742.)

Book Reviews

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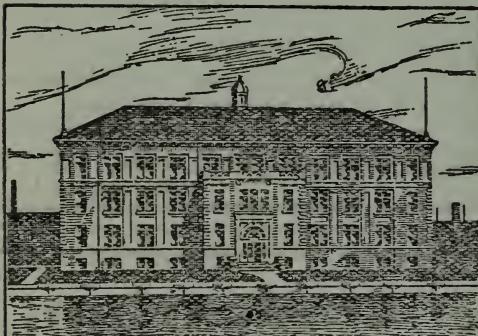
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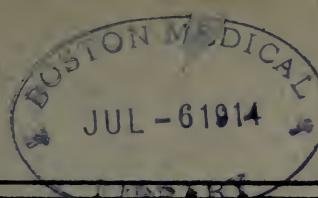
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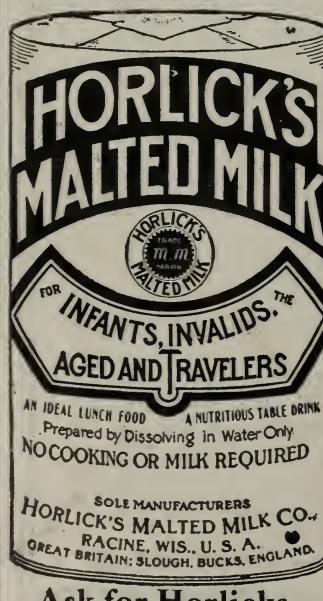
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The New Mexico Medical Journal

Volume XII

JULY, 1914

No. 4

E · D · I · T · O · R · I · A · L

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FAVOR THOSE WHO FAVOR US

The annual meeting of the New Mexico Medical Society will be held in Albuquerque on October 5th, 6th and 7th, 1914.

This is fair week and it is to be hoped that a larger attendance will be had than for some years past.

Reduced rates will be in operation on the railroads and the attractions of the fair added to a particularly interesting program both scientific and social ought to bring out a big crowd. We ask the members to bear the date in mind and make their arrangements accordingly.

Members desiring to present papers at this meeting will confer a favor on the secretary and the chairmen of the various sections as it is desired to issue the completed program promptly.

Remember the date, October fifth, sixth and seventh.

THE CHARITY OF MAN.

From the El Paso Times of June 18th, 1914, we clip the following:

"Charged with being insane, Mrs. Parmelia Bauche of East El Paso was

yesterday brought to the county jail by Deputy Sheriff Juan B. Larrazalo. Mrs. Bauche makes the eighth prisoner confined in the insane ward of the prison. Severe mental strain is said to have caused the unfortunate woman to become mentally unbalanced. She was examined by Dr. ——, who pronounced her a dangerous person to be at large."

When will such a blot upon the fair name of the Southwest be stopped? This is done in accordance with the law, in spite of the fact that the medical societies in the states where such laws exist have protested over and over and over again. These laws have been made by politicians who know little about medicine, and who will not heed the protests and suggestions of the medical profession. Insane patients are absolutely helpless and just as worthy of the proper care and treatment as typhoid fever patients. The community would hold up its hands in holy horror if sufferers from typhoid were put in jail charged with the crime of having that disease. Yet with typhoid the patient frequently contracts the disease through gross carelessness on his part, and on that account alone is the means of others being infected and dying. Typhoid fever is certainly no less a crime than is insanity. The

prognosis in cases of insanity is very often dubious at best, and their last chance of cure is destroyed when they are thrown into a city jail under the most unfavorable possible mental conditions. These patients should be placed in a hospital under reasonably good care until there is a vacancy in the state institution for them. This would cost less than a dollar a day per patient. Why will not the law makers assembled in the state capitals where such laws are in force make reasonable provision for these unfortunates? Men are supposed to be elected to legislative office on account of special ability in that line, and they should not be forced by public opinion to unwillingly make these just and necessary laws. Their position, in such a matter as this, after it has been called to their attention, should be to lead.

Such treatment of insane patients is a relic of the barbaric Middle Ages, when these people were supposed to be possessed of devils, and were killed, stoned or chained. It is time for such outrages as this to stop. E. C. P.

TEMPERATURE.

"The patient has *no temperature* today but had some yesterday."

Of course, we know what is meant, but the expression is absolutely incorrect and should never be used. A condition of "no temperature" is an impossible state of affairs, and may mean either normal or subnormal. "Some temperature" or "temperature" would mean fever. These terms are inaccurate and do not convey the meaning as well as the proper ones, "fever," "normal" and "subnormal" temperature. For some time this error has been creeping into use among physicians and

nurses, and has been copied by many laymen. Such incorrect slang is entirely out of place in scientific medicine, and we respectfully suggest the use of the proper words.

E. C. P.

CARBON MONOXID AND CANARIES IN MINES

The United States government has recognized the usefulness of small animals in the detection of poisonous gases in mines as well as in rescue work which calls for the greatest care to prevent harmful consequences. Carbon monoxid, the most toxic of mine gases, is produced in blasting. When large shots are fired, where the ventilation is poor, and the working-faces are too far ahead of the last breakthrough, harmful percentages of carbon monoxid and other poisonous gases may be encountered. Miners frequently go home sick from powder smoke. The latter sometimes contains as high as 4 per cent of carbon monoxid while the products of the explosion of guncotton contain many times this proportion. Carbon monoxid is the constituent of after-damp most insidious in its action, most difficult to detect, and responsible for most of the deaths caused by mine explosions. For these reasons it becomes highly desirable to have a practical and sensitive indicator of quantities of carbon monoxid which may be in even the slightest degree harmful to man.

The United States Bureau of Mines has made an elaborate investigation to determine the relative usefulness of various animals and has found canaries and mice to be most suitable, the birds being the more sensitive of the two. They are easily obtainable and become

pets of the men. One of the questions, says *The Journal of the American Medical Association*, was whether canaries become susceptible to the poison after several or many exposures. The smallest amount of gas which will affect a man is 0.05 per cent. The same percentage produces very slight symptoms in mice. Two-tenths of one per cent. is very dangerous to man. When the proportion of carbon monoxid is 0.15 per cent canaries will show distress usually in from five to twelve minutes, and with 0.2 per cent. of the gas in from two to six minutes. Much longer time is required before distress appears in men, although in the case of some persons the effects, when they do appear, may last for hours. Men cannot stand collapse from carbon monoxid as animals can. After distress and collapse canaries and mice recover quickly if given fresh air. In man, recovery is often a matter of days; and long-standing after-effects are by no means rare. Men may feel distress, especially if they work hard, in the presence of 0.1 per cent or under of carbon monoxid, when animals at rest in their cages do not show it. Sometimes different animals of the same species appear to be affected differently by the same proportion of the gas; hence more than one should be used at a time. Fortunately, no acclimatization of canaries appears to occur, so that these birds do not become less useful or a possible source of danger. Guinea-pigs, on the other hand, appear to become immune.

THE DEATH RATE FOR 1913.

According to a bulletin of the Bureau of the Census, the death-rate of the registration area of the United

States for 1913 was 14.1 per thousand estimated population. In 1912 it was 13.9 in 1911, 14.2. For the years from 1901 to 1905 the average was 16.2; from 1906 to 1910 it was 15.1. We are therefore continuing in improvement, the average for 1911, 1912 and 1913 being 14.06. These are the exact figures as stated in the report of the census bureau. What they mean in actual lives is not indicated except by closer analysis. The decrease from 16.2, the average from 1901 to 1905, to 14.1, the average for 1913, amounts to 13 per cent., or a reduction of one death in every eight. If the same rate had prevailed in 1913 as in the period from 1901 to 1905, there would have been 1,025,446 deaths recorded instead of 890,823, an excess of 134,623.

The largest percentage of decrease was shown in Rhode Island (15.7), followed by New York (12.3), New Jersey (11.2) and Massachusetts (9.6). It seems to be only a peculiar coincidence that these leaders should all be in one section of the entire territory discussed. Slight increases which occurred in some states (Michigan 4.5; New Hampshire, 3, and Indiana, .08) are believed to be due in some cases to increased accuracy of registration. The state with the lowest death-rate is Washington, with 8.5 deaths per thousand population; and then in the following order come Minnesota, 10.4; Utah, 11.0, and Wisconsin and Colorado, 11.5. The doubtful honor of possessing the highest rate falls to New Hampshire with 17.1; North Carolina, 16.8; Maryland, 16.2; Vermont, 15.8; Maine, 15.3, and Rhode Island, 15.0. It seems that in the New England states there occurred most of the higher

death-rates and most of the improvements from previous years.

It is significant that the four states in the registration area which have a colored population of over 10 per cent., Kentucky, Maryland, North Carolina and Virginia, should average 15.0, while a group with equal population but fewer colored, Wisconsin, Washington, Vermont and Minnesota averages 11.5.

Among cities of over 100,000 population, Seattle and Spokane lead by far with death-rates of only 8.4 and 8.9 respectively. Portland, Ore., follows with a rate of 9.5, so that this particular corner of the United States by comparision would seem to be more than holding its own. It seems almost obvious that location, climate and character of population are responsible for this low rate. Minneapolis and St. Paul as usual contest for next place with 11.6 and 11, Oakland and Milwaukee following with 12.5 and 12.7. The highest rates occur in Memphis, Tenn., 20.8; Richmond, Va., 20.4; New Orleans, 19.9; Albany, N. Y., 19.8; Baltimore, 18.5; Nashville, Tenn., 17.8; Birmingham, Ala., 17.4; Atlanta, Ga., 17.4, and Washington, D. C. 17.3.

The cause of this high rate in Southern cities has probably often been mentioned and often explained, but we cannot too often point the way to betterment, says *The Journal of the American Medical Association*. In the accompanying table, the significant figures need no explanation.

The arraignment is a startling one, but when comparison is made with previous years, a basis is obtained for hope that progress now started will continue, and much is being done. It is to be

Death-Rate per 1,000 Population	Increase (+) or Decrease (-), per cent. 1913 as compared with average 1901-1905.		
	Total	White	Colored
	Total	White	Colored
Memphis	20.8	15.9	28.2
Richmond	20.4	16.7	26.8
New Orleans	19.9	15.6	31.9
Baltimore	18.5	16.2	31.0
Nashville	17.8	14.7	24.0
Birmingham	17.4	12.3	25.2
Atlanta	17.4	12.3	25.2
Washington	17.3	14.4	24.4
Average	18.68	14.9	27.08

noted that in only two instances did the colored rate increase. Recently a conference was held at the call of the Louisiana State Board of Health to consider betterment of hygiene among negroes. Five states and the District of Columbia sent delegates. Eight of the leading negroes of the South were present. Progress has been made and sincere workers are adding impetus to the beginning steps. Another decade should see a more reasonable balance between the rates accorded to the two races.

For those of our readers who are interested in Public Health matters we present below a short list of books on several topics. These lists have been endorsed for general reading by the Sub-committee on Medical Literature of the Council on Health and Public Instruction of the American Medical Association.

Health and Hygiene of Babies and Children:

Burbank—*The Training of the Human Plant.*

Chapin—*Theory and Practice of Infant Feeding.*

Coolidge—The Mothers' Manual.

Cotton—Care of Children.

Fitz—Problems of Babyhood; building a constitution; forming a character.

Forsyth—Children in Health and Disease.

Hall—Youth: Its Education, Regimen and Hygiene.

Key—The Century of the Child.

Montessori—The Montessori Method.

Oppenheim—The Development of the Child.

Saleeby—Mystery of Life Series.

Swift—Mind in the Making.

Warner—The Nervous System of the Child.

Health and Hygiene of Girls:

Bell—Our Teeth: How to Take Care of Them.

Bryce—Laws of Life and Health.

Call—Power Through Repose.

Dodge—A Bundle of Letters to Busy Girls.

Gulick—Mind and Work.

King—Rational Living.

Latimer—The Changing Girl.

MacFie—Air and Health.

Mosher—Health and Happiness: A Message to Girls.

Pusey—The Care of the Skin and Hair.

Pyle—Personal Hygiene.

Sadler—The Science of Living and the Art of Keeping Well.

Saleeby—Health, Strength and Happiness.

Smart—What a Mother Should Tell Her Daughter.

Solis-Cohen—Woman.

Health and Hygiene of Women:

Bainbridge—Life's Day.

Clouston—Hygiene of the Mind.

Currier—The Menopause.

Galbraith—Four Epochs of a Woman's Life.

Giles—Menstruation and Its Disorders.

Gordon—The Modern Mother.

Gouraud—What Shall We Eat?

Gulick—The Efficient Life.

Hewitt—House-Flies and How They Spread Disease.

Hough and Sedgwick—The Human Mechanism.

Latimer—Girl and Woman.

Payot—The Education of the Will.

Saleeby—Woman and Womanhood.

Spaeth—Coming Motherhood.

Walker—Beauty Through Hygiene.

Social Hygiene:

Dawson—The Right of the Child to be Well Born.

Ellis—Man and Woman.

Foerster—Marriage and the Sex Problems.

Gorst—The Children of the Nation.

Hall—Adolescence.

Henderson—Education with Reference to Sex.

Irving—Nature's Truths Told to a Little Maid.

Lydston—Diseases of Society and Degeneracy.

Lyttleton—Training of the Young on Laws of Sex.

Morrow—Social Diseases and Marriage.

Saleeby—The Cycle of Life.

Smart—The Mystery of Life Series.

Stephens—Woman and Marriage.

Stewart—American Bad Boys in the Making.

Wile—Sex Education.

NEWS ITEMS.

Doctor S. L. Burton of Albuquerque attended the A. M. A. meeting at Atlantic City.

Doctor W. A. Parvis of Socorro

has gone abroad for seyeral months' study in European clinics.

The Journal offers its heartiest congratulations to the President of the New Mexico Medical Society. May you both live long and prosper.

Dr. Kauffman was recently married in Santa Fe to Miss Candelaria, of that city.

Capt. J. O. Walkup, M. D., U. S. A., was killed recently by a lightning stroke while driving his automobile at a rapid speed from Central to Fort Bayard in Grant County. Doctor Walkup will be remembered by those in attendance at our last regular meeting.

Original Articles

OIL-ETHER COLONIC ANAESTHESIA.

W. W. SPARGO, M. D., Albuquerque

The need of a method of general anaesthesia other than that by inhalation has for certain operations and in certain conditions long been recognized.

To meet such indications Doctor James T. Gwathmey has recently introduced a method of rectal anaesthesia which is simple in technique and apparently not more dangerous than the usual method by inhalation. However, a sufficient number of cases has not been collected to definitely settle this point.

For the benefit of those who may not have seen Doctor Gwathmey's articles I will briefly review the technique. The day previous to the

operation a mild laxative, such as castor oil should be given, the following morning the lower bowel is thoroughly cleansed by irrigation, after which the patient should rest for two hours. One hour before the operation from five to ten grains of chloretone, either in the form of a rectal suppository or dissolved in from two to four drams of ether and the same amount of olive oil, should be introduced into the rectum. One half hour previous to the operation from one-eighth to one-fourth of a grain of morphine sulphate with from 1-150 to 1-100 of a grain of atropine should be given hypodermically, according to the condition of the patient. The patient should be placed in a modified Sims position on the left side and the oil-ether mixture introduced through a long rectal tube, taking about one minute for each ounce of solution. Anaesthesia will usually be induced in from fifteen to twenty minutes. After the operation is completed, or at any time, if necessary the solution can be withdrawn through the tube which has remained in situ, another tube is then introduced alongside of the first, the colon is washed out with about a gallon of soapy water, after which three or four ounces of olive oil is introduced, followed by from a pint to a quart of cold water which is allowed to remain in the rectum.

With reference to dosage the ordinary healthy adult should receive one ounce for every twenty pounds in weight of a 75 per cent. solution of ether in olive oil. Children under four a 50 per cent solution without any preliminary medication. From four to ten a 55 per cent. to 65 per

cent solution, over fifteen the adult dose, with one-twelfth of a grain of morphine.

I have used the method with satisfactory results in the following cases:

Case 1—Male; age 30; weight 135 lbs.—tubercular. Operation—castration. Preliminary medication, morphine one-sixth grain, atropine—1-150 grain, chloretone—5 grains. Five ounces of a 70 per cent. solution was introduced. Surgical anaesthesia was attained in fifteen minutes. The respiration became somewhat feeble and we experienced a little uneasiness, it being our first case, but no really alarming symptoms developed. The operation lasted only fifteen minutes, the rectum was then washed out, and the patient regained consciousness shortly after. The usual amount of post anaesthetic nausea and vomiting was present in this case, but no noticeable irritation of the lungs.

Case II—Female: age 50; weight 100 lbs. Operation—perineorraphy and ventral fixation. Preliminary medication, morphine one-eighth grain, atropine—1-150 grain, chloretone—5 grains. Six ounces of a 75 per cent. solution was introduced. Anaesthesia in twenty minutes, sufficient to do the perineorraphy. Laparotomy began ten minutes later, relaxation complete, no untoward symptoms at any time. Duration of anaesthesia three-quarters of an hour. Regained consciousness in one-half of an hour after operation was completed, absence of unpleasant after effects.

Case III—Male: age 30; weight 160 lbs. Operation—Internal appendectomy. Preliminary medication—morphine one-sixth grain, atropine 1-150

grain, chloretone—10 grains. Eight ounces 75 per cent. solution. Surgical anaesthesia obtained in twenty minutes. Operation began ten minutes later. During closure of the wound it became necessary to supplement the anaesthetic with a few whiffs of ether by inhalation on account of protrusion of intestines. The anaesthetic throughout the operation was satisfactory, no respiratory embarrassment at any time. Pulse 72 at end of operation. Regained consciousness within a half hour after completion of same. Vomited once slightly, after operation.

Case IV—Male: age 50; weight 200 lbs. Operation cholecystotomy. This case did not receive the proper bowel preparation for which reason the anaesthesia was not entirely satisfactory. The usual preliminary medication was given and eight ounces of a 75 per cent solution introduced. The greater part being expelled before anaesthesia was induced it became necessary to introduce more, eight ounces more in all, but as considerable of this was expelled, it was impossible to say just how much was retained, anaesthesia was sufficiently deep to begin operation in one-half hour, but it was necessary upon three occasions during the operation to give a small amount of ether by inhalation to secure sufficient relaxation. An unforeseen accident happened during the closure of the wound and as the anaesthesia was rather superficial it was necessary to supplement by inhalation to complete the operation.

The partial failure in this case should not be attributed to the method but rather to the lack of proper preliminary preparation.

Case V—Female: age 21, weight 100 lbs. Operation—internal Alexander. Preliminary medication, morphine one-eighth grain, atropine 1-150 grain, chloretone 10 grains. Five ounces 75 per cent. solution. Anaesthesia quietly induced in fifteen minutes which was satisfactory in every way, relaxation was complete, no respiratory embarrassment. The usual amount of post anaesthetic vomiting was present.

Case VI—Male: age 55, weight 150. Operation—excision of the glands of the neck. No preliminary bowel preparation. Preliminary medication—morphine 1-4 grain, atropine 1-150 grain, chloretone 10 grains. Eight ounces of a 75 per cent solution, anaesthesia in fifteen minutes, slight stage of excitement. After the operation had lasted about an hour and half, two ounces more were introduced, as the patient began to come out. This was sufficient to maintain surgical anaesthesia until the completion of the operation. No unpleasant after effects.

Case VII—Female: age 50, weight 150. Operation—ventral hernia. Preliminary medication, morphine one-eighth grain, atropine 1-150 grain, chloretone—10 grains. Six ounces of a 75 per cent. solution. Anaesthesia quietly induced in fifteen minutes. Once during the operation on account of protrusion of intestines induced by too superficial plane of anaesthesia an additional ounce was introduced. Aside from some obstruction to respiration caused by dropping back of the tongue, the anaesthesia was perfect. The patient vomited three times after the operation. The nausea and vomiting after ether by inhalation for previous operations lasted three days.

Case VIII—Child age 7, weight about 50. 2 1-2 ounces of 50 per cent. solution was injected. After waiting 20 minutes without surgical anaesthesia being induced, ether by inhalation was given.

Case IX—Child age 6, weight 50. Operation for tonsils and adenoids, bowels washed out just before operation. 2 1-2 ounces 60 per cent. solution introduced, part expelled, and 2½ ounces more given. Surgical anaesthesia was not attained, but the anaesthesia was sufficient to perform the operation.

Case X—Female, age 30, weight 130. Preliminary medication—morphine grain $\frac{1}{8}$, atropine 1-150, chloretone grains 10. Seven ounces of the 75 per cent solution was introduced, partly expelled and it was necessary to introduce three ounces more. Anaesthesia in 20 minutes. Complete relaxation, no respiratory embarrassment.

Case XI—Baby, 1 month old, weight 10 lbs. 1-2 ounce of a 50 per cent. solution. Operation for cleft palate. Sufficient anaesthesia was induced to

Case XII—Male, age 71, weight 125; operation partial gastrectomy with an anterior gastro-enterostomy. Preliminary medication morphine grain 1-6, atropine grain 1-150, chlorotone grains 10. Seven ounces of 75% solution introduced. Surgical anaesthesia attained in 20 minutes. Upon exploring the abdomen, anaesthesia being too superficial, it was supplemented by inhalation, until complete relaxation. The operation lasted 3½ hours, and it became necessary on two occasions during, also at closure of peritoneum, to give a small amount of ether by inhalation. Early in the anaesthesia there

was a slight embarrassment of respiration due to obstruction by the tongue occluding the air passages. I doubt if this case would have stood an inhalation anaesthesia for such a long period of time. There was post anaesthetic vomiting in this case.

Case XIII—Male, weight 130; operation interval appendectomy. Usual preliminary medication, 6½ ounces of 75% solution was given. Anaesthesia in 15 minutes; once during the operation it was necessary to give a few whiffs of ether by inhalation. The anaesthesia was satisfactory in every way; duration of operation one hour.

The advantages of the method so far as my limited experience with it as observed, are, that anaesthesia is induced more quietly than by the usual inhalation method, that with a proper dosage a more even plane of anaesthesia will be maintained. The anaesthetist can give his undivided attention to watching the condition of the patient. There is no accumulation of mucus in the air passages, as is so frequently the case with ether by inhalation. There is less post-anaesthetic nausea and vomiting.

In conclusion a few words of caution. On account of its simplicity an operator might be tempted to dispense with the services of an anaesthetist. This might be overlooked in an emergency if one were not available, but I wish to emphasize that just as much care in watching the condition of the patient is required in this as in any other method. My experience confirms Doctor Gwathmey's who states: "The reflexes remain active and there is a complete absence of stertor and even of puffing so frequently observed

under inhalation anaesthesia. A diminution in the activity of the reflexes or the occurrence of stertor, except in very stout persons, in whom a slight stertor is not necessarily a danger signal—or even a puffing of the lips, is an indication that the narcosis is too profound, and a portion of the fluid should be withdrawn."

THE TREATMENT OF ABORTION

WILLIAM HOWE, M. D.,
East Las Vegas, New Mexico.

(Read before the Las Vegas Medical Society, East Las Vegas, New Mexico, June 17th, 1914.)

Kelley divides the treatment of abortion into four classes, viz:

I.—Prevention, which is subdivided into a, b, and c; a, being before another pregnancy occurs; b, before symptoms of abortion appear; c, treatment of threatened or imminent abortion.

II.—Treatment during progress of abortion.

III.—After treatment.

IV.—Treatment of the sequellae.

For convenience sake we will discuss the subdivisions separately.

I.—PREVENTION.

(a) *Before another pregnancy occurs.*

In cases where there have been repeated abortions, the first thing in mind is the question of syphilis with either husband or wife and this should be investigated carefully, and if warranted one or both, put under treatment.

Any disease of the uterus or appendages should be corrected, for instance, hyperplastic endometritis by curettment. A lacerated cervix should be repaired.

If extensive erosion, which does not respond to treatment, or cystic degeneration which can not be properly dissected out, amputate the cervix.

Chronic hypertrophy or subinvolution may be greatly reduced by large vaginal douches of hot water daily in the recumbent posture, followed by glycerine tampons every second day; but, from my own experience and observation of the work of others it has been more satisfactory in the majority of cases to first curette and then follow up with the douche and tampon treatment if indicated.

Displacements and perineal lacerations should be corrected as far as consistent; piles, fissures and fistula-in-ano should be removed.

Enteroptosis and the general physical condition should be corrected by general hygienic measures, proper exercise and medication, open air and suitable clothing, diet, etc. The condition of the bowels should be attended to and daily evacuation secured.

The general health and surroundings should be put in as good a condition as possible.

Anaemia and nervousness should be treated properly and everything done to make the patient comfortable and happy and the mind kept from worry by pleasant thoughts, surroundings and suggestions, occupation and change of scene.

(b) *Before symptoms of abortion appear.*

With many patients who have previously aborted, some of the prepara-

tions of viburnum given for weeks or months at a time as a uterine tonic and sedative have proven very satisfactory in my practice, but with those with a strong tendency to abort, it may become necessary to keep them in bed for several days at a time at the regular expected time of the menses, holding them under viburnum for the uterine sedative effect and perhaps the bromides to lessen the sexual excitability, forbidding all sexual intercourse shortly before, during and immediately following the expected times.

(c) *Treatment of threatened or imminent abortion.*

When symptoms arise threatening abortion or if it becomes imminent the case should be reviewed and studied from every viewpoint.

The patient must be kept quiet and in bed under the influence of morphine or some other opiate, and viburnum should be pushed. Absolute mental quietude can not be overestimated nor too strongly impressed upon the patient's friends.

Vaginal examinations should be restricted and the use of light vaginal tampons as advised by some of our authors, should be abandoned, as I believe they often prove fatal to the ovum. A much better procedure is to elevate the foot of the bed from 8 to 12 inches; this position reduces the blood pressure of those organs by reducing the influx of blood and emptying the veins.

We should not be too fainthearted and prone to abandon our efforts to prevent abortion, considering the case beyond our control, for we have prevented many abortions by the above procedure, sometimes when the hemor-

rhage had been appalling. I believe it to be as much our duty to bend every effort in the interest of the foetus in utero as it is to snatch the child from the jaws of death during a convulsive seizure and restore it safely to the mother's arms at any time during its first few years of existence.

II.—TREATMENT DURING THE PROGRESS OF ABORTION.

If in spite of our efforts abortion is going to take place, the treatment may be either expectant or active as the case may demand.

I know of no other condition that opens wider the avenues for discussion, unless it be the question of when, or whether or not, to operate in appendicitis.

The expectant line of treatment is justifiable and right up to a certain time or point, especially with a patient near by and under close observation, but when in the country there is another picture and the time is much shortened.

My observation has been that the majority of men in general practice are too much inclined to wait for days and sometimes weeks for the natural forces to bring about a favorable termination, assisted perhaps by a little obstetrical tinkering with tampons, repeated examinations, etc. I especially refer to the incomplete abortions and also to those in which we are suspicious of criminal interference.

Instrumental and digital examinations greatly increase the danger of sepsis in abortion as they do in labor at term; as does also the bad habit which some women have of self examination, as well as those done by some other women in attendance.

During my first five years practice I followed the expectant plan as advised by some of our teachers and some of my older colleagues, and labored several times, under considerable anxiety, with prolonged hemorrhage and some cases of sapremia and sepsis, but for the last ten years my method has been active.

In all cases where it was impossible to prevent an abortion, and where the cervix was opened sufficiently to admit the end of a finger and especially where the foetus had escaped leaving the secundines in utero, my practice has been to give an anaesthetic and remove the uterine contents at once, using the finger as a currette, without the use of any other instrument, tampon or manipulation, as I believe the trained finger makes the best currette at our command, greatly lessening the danger of sapremic and septic sequelae and with gratifying results.

I am sorry that Winkel's teaching, to wait for hemorrhage and fever, still has some advocates, for there are bound to be incomplete and neglected cases come to us from time to time from the hands of incompetent midwives, abortionists, and the self treated, so that the profession must be ready to meet the conditions as they arise.

III.—AFTER TREATMENT.

The patient should be kept in bed for a week or ten days as the conditions may demand.

She should be kept clean by sponging the genitals with an antiseptic and applying sterile napkins as in a case at term.

All douching should be abandoned as useless and rather increasing the

chances of carrying an infection,—especially if left in the hands of untrained and incompetent nurses as is so often times done.

Administer tonics as demanded to build up the vitality and restore the normal quantity of blood for that which was lost.

Before the patient is dismissed it is wise to insure oneself of good involution of the uterus and if necessary institute suitable treatment.

IV.—TREATMENT OF SEQUELLAE.

As sapremia and septicaemia are the most frequent sequellae following abortion we believe they deserve an important place in this discussion.

It is a demonstrated fact that we have no one satisfactory treatment for puerperal infection, for the reason of the vast number of methods being suggested and the various means advocated by as many authors.

It is a difficult task, many times, to determine in the start whether we have a sapremic or a septic condition at hand especially in an incomplete abortion, but finding on examination retained blood and membranous rags hanging from the cervix we should promptly remove the decomposing uterine contents by the use of the finger, as it is much more readily effected than by the currette and with far less danger of breaking down the leucocytic wall which serves to prevent the invasion of deeper structures by opening up new avenues for absorption.

Then follow with an abundant saline douche to flush out the remaining debris, which, if it be only a sapremic condition, will abate the symptoms and lower the fever so there will be no need of any farther local treatment.

There should be a microscopical examination of the contents to know what form of infection we have to deal with, and should the symptoms continue, we may be sure that the deeper structures have been invaded and we have to deal with a septic condition.

Then comes the choice of treatment to follow. I have used the antiseptic douches of carbolic acid and bi-chloride of mercury and abandoned them, as being contra-indicated, useless, and not devoid of danger, and under these circumstances their employment is not rational, inasmuch as the germicidal fluid cannot, without poisoning the patient, possibly penetrate the uterine wall sufficiently deep to reach the bacteria which are giving rise to the symptoms.

I have used the streptococcal serum in a few cases and I thought with some benefit, but Williams, who was chairman of a committee for that purpose, has made an extensive investigation in regard to it and reports that there is no evidence of its therapeutic value, and as far as I can find in the recent literature, it has not given the results we expected and hoped for.

Perhaps my cases belonged to the class that make a spontaneous recovery, and which makes so many of our observers enthusiastic after employing a particular agent in a few successful cases. However I believe we are justified in using it in those cases where we believe it to be indicated.

The line of treatment that has given me the best results is the method advised and practiced by Dr. Ill for the last 15 years, viz:

After cleaning out the uterus and douching with an abundance of sterile

water or saline a soft rubber catheter of large size is perforated several times in the first three inches and inserted into the uterus to the fundus, a clove hitch taken around the catheter with a sterile cord just outside the cervix as a guide that the catheter may not be withdrawn without notice, the uterus is then lightly packed with a ribbon of gauze and when filled the cord is anchored to the gauze just outside the cervix; the vagina is then packed with gauze and another cord embraces the two so that it may not be drawn out by accident. A piece of rubber tubing about 18 inches in length is united to the catheter by a glass joint and by the use of a small funnel at the distal end of the tube, 25 to 50 per cent alcohol is poured in until the tampon is saturated; the treatment is kept up by instilling about two ounces every two hours; the return flow prevented by a pinch cock on the tubing.

The funnel and tubing are placed in a clean towel on the patient's abdomen and held there by a binder; the patient should be placed in a high Fowler position as we believe there is no other surgical condition where it is more indicated and gives more pleasing results.

This method may be carried on in the home of the less fortunately situated, and where no trained nurse is at hand, by supplying a quart of the dilute spirits and a clean two ounce bottle with directions to fill this bottle and pour it into the funnel every two hours.

This treatment is absolutely harmless and the only discomfort to the patient is the first time the solution flows over the perineum.

The only untoward effect we have

seen from its use was in a case in consultation which was thought to be moribund and instead of using the dilute spirits, the case being a desperate one, the absolute strength was instilled and this produced intoxication, however, the patient made a recovery.

The catheter may remain in the uterus five days unless the temperature drops below 101° F. taken per rectum, but as it falls the spirit may be instilled less frequently.

When the temperature has remained below the mark for 24 hours the dressings may be removed.

If there is no improvement observed in the septic condition within 24 hours, we may expect complications beyond the uterine body.

In connection with the above treatment I would advise the application of an ice bag above the pubes with a towel between it and the skin as long as the temperature remains above 101° F.

Support the patient with tonics as Iron, quinine and strychnine, and a liquid nutritious diet, keep the bowels open daily by saline cathartic; much good may be done in severe cases by using saline hypodermoclysis or enteroclysis.

Many authors are advising alcoholic stimulants to be pushed in all cases of septicaemia and it is found that these patients bear it better and freer than do others, so why not apply it direct to the field of invasion?

Extrication of the uterus has not met with the approval of the majority of our best men and offers but little encouragement; if the infection is confined to the uterus it is hardly justifiable and if it has gone beyond it, it is useless.

In case of pelvic cellulitis, open and drain as soon as fluctuation occurs.

My observation in these cases has been very much like that of others, that we rarely get septicaemia following abortion outside of those produced by criminal intent, by the passing of instruments as bougies, etc., and to what extent the medical profession is responsible for the murder of the unborn is shown by the fact that women often use these instrumental means themselves, and are sufficiently posted to boil or sterilize them before their insertion.

Dr. Bacon estimates from 6 to 10 thousand abortions annually in Chicago and we will have to draw our own conclusions as to what percentage of them are induced.

The way to secure conviction of the crime, is to first prove that the woman was pregnant by the microscopical findings of the curette and that curettage was not performed for chronic endometritis; to prove in the second place that the death resulted from the criminal operation itself and to finally prove that the particular person charged did the operation and even then the punishment of such criminals is always difficult, as popular sympathy is rather with the abortionist and murderer and the witness is more than apt to be an unwilling one.

OPERATIVE TECHNIQUE.

S. D. SWOPE, M. D.,

Deming, N. M.

Operating Room. There should be nothing in the operating room that is not surgically clean.

After each day's operations the floor should be wiped up and all stains re-

moved. All linen and temporary covers removed and stock solutions replaced, drainage tubes and accessories inspected and the floors wiped with a formaldehyde solution, one drachm to two quarts of water.

Instruments at Operation. Knives are boiled but three minutes and are then kept in 5% carbolic acid solution until needed when they are wiped with sterile gauze and placed convenient for operator.

All other instruments are boiled twenty minutes in soda solution and then laid out ready for use.

Should an instrument be needed that has not been previously prepared, it may be boiled two minutes, dipped in alcohol and placed for the operator.

When an instrument is soiled by becoming bloody, it may be wiped with sterile gauze by the first female assistant and returned to the table. If very bloody it may be dipped in 5% carbolic acid in sterilized water solution, and laid convenient to the operator. If an instrument becomes infected by coming in contact with pus or unclean substances, or drops on the floor it must be boiled for three minutes, dipped in alcohol before returning to the operator.

Instruments After Operation. After operation instruments, except knives, are carefully washed in cold, preferably running water. All joints carefully cleaned with a small brush, being careful to remove all blood stains, after which they are boiled in soda solution and dried. All damaged instruments are laid out for repair and others returned to case.

Knives are rinsed in cold water, dipped in hot soda water, dried and put away.

Dressings, Towels, Sponges, Gowns, Caps and Masks. Sterilize all dressings in steam for one hour and dry for twenty minutes. Where vacuum sterilizer is available, sterilize at fifteen pounds pressure for thirty minutes and dry ten minutes. Where above articles are not needed for some time and where the assistants are not well and thoroughly trained, it is best to keep all such articles in covers or retainers made of muslin.

Ligatures and Sutures. Only ligatures and sutures from authenticated producers should be used. In small hospitals, from original packages, sealed. The tubes should be dropped in hot water and removed to an alcohol bath from which the head female nurse removes and opens them as needed. Odds and ends may be preserved sterile and placed in a 5% solution iodine and alcohol, in a closed jar, when they may be used as if taken from a fresh sterile tube.

Silk. Silk is used for serous surfaces, in operations on the stomach and bowels, in securing drainage tubes and in closing wounds, as a purse string in appendectomies.

Catgut, plain. In tying off appendix, tying small veins and arteries and in suturing when not more than six days retention is necessary.

Chromatized Catgut. In all work where retention is required for ten days or more, peritoneum, facia, muscle and ligation of large vessels.

Silver Wire. In holding bones together and in positions where knots are difficult to tie and a self retaining twist is necessary, such as closing tears in mouth of uterus.

Kangaroo Tendon. In tying large pedicles where a non-absorbing or very

slowly absorbing non-irritating material is needed.

Silkworm Gut. In perineal sutures, stay sutures and where non-irritating sutures are needed.

Horse Hair. In closing wounds with continued and buttonhole sutures and as small drains.

Silver Clips. In closing wounds where there is little or no tension, they are easily applied and easily removed.

Preparation of Operators and Assistants. Should take a tub bath the morning of the operation. Before preparing for the operation, all woolen garments should be removed and men dress in sterile duck pants and service muslin, short sleeved sterile gown. Women in a white uniform, waists or gauze vests and sterile service gown.

Preparation of Hands. The hands should be scrubbed for ten minutes in good soap and water. Nails carefully cleaned and hands scrubbed ten minutes more in soap and warm water, rinsed in clear water, dried on a sterile towel and dipped in alcohol. All is now ready for the final preparation after the patient is on the operating table, the staff need only to put on the sterile gloves, leaving cuffs turned down over upper hand. Put on the sterile operating gown with long sleeves or adjustable armlets. Pull up the gloves over sleeve cuff, adjust cap and mask and they are aseptic and ready for final preparation and operation.

Service Gown. Is used while working around the operating room previous to beginning operation. It is clean but not supposed to be sterile. It is all that is necessary for the second female nurse in attendance unless she is re-

quired to take the head nurse's place, then she must put on operating gown and gloves as above. The second nurse need not wear gloves while acting in that capacity.

Assistants. In major operations requiring extensive procedures when time is an important factor, there should be an anæsthetist, two female assistants and two male assistants. In operations of less magnitude but requiring rather extensive work, an anæsthetist, two female and one male assistant. In still smaller operations like a currettage or *perineoriph*, an anæsthetist and one female assistant will suffice.

Duties of Anaesthetist. Examine patient before the operation, or have the assurance of a competent person, that the patient has no contraindication for general anaesthesia. Adjust the position of the patient and give his whole time to the administration of the anaesthetic and the care of the patient. To answer such questions relative to the condition of the patient as may be required by the operator. Acquaint the operator with any condition arising which he deems necessary for the operator to know and make a record of the time the anaesthetization was begun, how the patient took the agent, pulse at beginning and end of anaesthesia, time agent was employed, name of agent and amount given, time operation was begun and when closure was completed.

Duties of Female Assistants. First female assistant has general supervision over operating room and preparation of dressings, gowns and instruments. She receives her instruction from the operator and the first male

assistant. She has charge of the needles, sutures, ligatures, drainage tubes and dressings. She must be sterile until the wound is closed. The second female assistant looks after the sterilizer, assists assistants to gowns, cap and mask, brings in instruments and attends first female and both male assistants when required. She is clean but not sterile. She must not touch an instrument, dressing or gown with any part of her body or garments. She is to pick up instruments that drop or become soiled, resterilize them and return with hooks or forceps. She is to wipe up any mess, remove soiled towels and when not otherwise engaged, remains at attention. She may make herself sterile by putting on sterile gown, dipping her hands in alcohol and putting on rubber gloves.

First Male Assistant. Assists the anæsthetist and superintends preparation of patient. Places sterile towels over patient, looks after instruments and has everything in readiness for operator. He should anticipate the wants of the operator and be ready with sponges, retractor and haemostat when needed. He assists in ligating vessels and tying ligatures when inconvenient to operator or when operator is otherwise employed, goes to the assistance of the anæsthetist when necessary and assists in closing the wound. If he should become non-sterile he should relinquish his place to the second male assistant until he can become sterile and return to his duties. He must be prepared to give intra-venous salt solution and even take the place of the operator in emergencies.

Second Male Assistant. Attends to

placing patient on the table, assists in the preparation of patient and applies cleansing fluids and antiseptics. He sponges the wound, when operator and first assistant are employed, and looks after instruments; sees that dressings, ligatures and sutures are ready. He holds retractors when needed, prepares normal salt solution and helps first assistant to give when necessary. He takes place of first assistant when first assistant is out of commission for any reason. With first assistant, closes the wound and removes patient to room or carriage.

Preparation of Patient. The patient has a light supper at six p. m. and is given an ounce of castor oil at eight. A tub bath if practical and if not a sponge bath. The field of operation should be shaved and carefully washed with mild soap and water but no pad or dressing is applied. If the bowels have not moved freely by the next morning, an enema of soap and water should be given. Twenty minutes before the operation, a sixth of a grain of morphine and one hundredth of a grain of atropine are given. The patient walks to the operating room when possible and as soon as the anæsthetic is begun, the preparation is begun also. The patient is strapped about the knees with a wide web surcingle and the arms are held by wrist bands, held in place by a belt about the table. The field of operation is sponged over with a one to one thousand benzine and iodine solution which should not be allowed to run down under the patient or to accumulate in the folds of the skin. After this is carefully dried, the field of operation and for some distance around, is sponged with one-half

strength Churchill's tincture of iodine in alcohol. Aseptic towels are pinned about the field and the operation is begun as soon as the surgical anaesthesia is complete.

After Care. The patient is put to bed in warm sheets with warm blankets covering. The nurse takes charge and the surgeon gives his further directions to suit the case in point. Whether the patient is to lie prone, be bolstered up with pillows or be supported by a buttox sling, depends upon the individual case.

Care of Gloves. Boil for ten minutes then put in bichloride solution 4 c.c. sat. sol. to one gal. of water. After operation rinse in clear water, dry, mend holes, powder and lay away in box.

Abstracts

Urochromogen Test.

J. Metzger and H. S. Watson, Tucson, Ariz. (Journal A. M. A., June 13, 1914), give their experience with the Weisz urochromogen reaction in the urine as a prognostic sign in tuberculosis. They quote from Hefl:bower who first called attention to it in this country and who found it more reliable in these cases than the diazo test. Their experience covers two years with 113 patients. The test is described as follows: "Into each of two small test tubes is put 1 e.c. of urine, and 2 e.c. of distilled water are added; now, to one tube which is to be tested for urochromogen, three drops of 1:1,000 solution of potassium permanganate are added. The appearance of the faintest yellow color shows the presence of urochromogen and is easily detected by comparing with the control tube, to which

no potassium permanganate is added. The test is read positive, however, only when the solution stays clear." They give a detailed analysis of their observations with the use of the reaction according to the stage of the disease and say that "in the light of our experience with the urochromogen reaction, in these patients, it appears to us that the following statements seem at the present time permissible: 1. The presence of a urochromogen reaction in the urine of a patient sick with pulmonary tuberculosis is for the time being of unfavorable prognostic import. 2. The persistent presence of a urochromogen reaction in the urine, in spite of proper treatment, probably means a hopeless prognosis. 3. Its absence is generally, though not invariably (regardless of how sick the patient seems), of good prognostic import. 4. Its prompt and continued disappearance soon after treatment is instituted, in a patient who showed it before treatment, so far as our experience goes, is a favorable prognostic sign; but it will take several years' observation of these particular patients to determine this point conclusively. 5. Finally, it is not an invariable guide to prognosis, but in the majority of cases is of much value, and as all prognoses must be good, bad or doubtful, it will, if judiciously used, help materially to reduce the number in the doubtful class."

Puerperal Sepsis.

J. C. Hirst, Philadelphia (Journal A. M. A., June 13, 1914), remarks that it is evident that not every case of fever in the puerperal period is of septic origin and it should be remembered also that there are two varieties of sepsis, saprophytic, due to saprophytic infection and sep-

ticemia due to actual bacterial invasion, usually streptococcal and frequently invading directly the blood current. It is the latter that he specially discusses, as the former yields promptly to disinfection. Septicemia is far the more dangerous and less easy to diagnose. The general symptoms are chills, rapidly rising temperature and pulse and physical depression out of proportion to the other symptoms. The local symptoms are foul discharge, which is sometimes absent, reddened and edematous labia, false membrane formation and a subinvolved and tender uterus. The pelvic exudate is usually late when it occurs. Leucocyte-counts are usually higher than in any other form of fever in the puerperium, and cultures properly taken with the strictest aseptic technic are often of great value. The prophylactic measures, strict asepsis observed by both physician and nurse, are given in detail. The first curative step is local disinfection of the genital canal erroneously spoken of as currctting, the method of which is described minutely. It should not be done with the patient in bed but on a table (an ordinary kitchen table will suffice), and an anesthetic is not necessary. Careful cleansing of the parts followed by a 1:4,000 mercuric chlorid douche precedes and follows the cleansing of the uterine cavity. If the temperature does not subside or should rise again, intra-uterine douching alone is advised and the best solution is 2 drams of tincture of iodin, 8 ounces of 95 per cent alcohol, and sterile water enough to make 2 quarts. Once daily is sufficient, and the two-way catheter should have ample provision for return flow. There is only one contraindication to this treatment, that is, phlebitis, but it is not always possible to tell

risk. If a sharp rise in temperature follows the disinfection, further local treatment should not be countenanced. A routine use of vaginal uterine douches, purely as a preventive of infection and with an absence of symptoms specially calling for them, is not recommended. An easily digested, largely liquid diet should be given in large quantities and Hirst advises alcoholic stimulation as far as tolerated. Other stimulants are often needed for the heart, but a pulse under 110 does not ordinarily require stimulation. Artificial leucocytosis is theoretically beneficial, but Hirst is not enthusiastic as regards the benefit of a fixation abscess. Enteroclysis is also mentioned as sometimes worth a trial. Serum treatment is mentioned as sometimes giving beneficial results when used early and in sufficient doses. The serum must be fresh; it will not stand long transportation and it is also expensive. Sometimes a daily transfusion of normal human blood-serum from a healthy donor seems to have given benefit and is worth trying when antistreptococic serum fails. The use of bacterins has been less satisfactory, and colloidal silver, Hirst thinks, is of doubtful utility, though as an unction it is harmless. As regards surgical treatment, he says every physician should be ready to give it if needed. Continual septic symptoms plus an abdominal mass, palpable above the symphysis or Poupart's ligament call for abdominal section. This abdominal mass almost always means a cornual abscess pointing toward the peritoneum, and he emphasizes the advisability of operation in these cases. Without operation the patients are doomed; but with it and with proper drainage (which is the main factor in success) 90 per cent of them can be saved. Phlegmasia alba dolens is mentioned as a complication, and

its treatment noticed. Its greatest danger is pulmonary embolism, which is increased by early activity or massage, and this should never be used.

Compound Fractures.

W. L. Estes, Bethlehem, Pa. (Journal A. M. A., June 13, 1914), bases his remarks on the subject of compound fractures of the extremities on the following postulates: "1. In civil practice a compound fracture is always not only a solution of the continuity of a bone, but also a lacerated wound of the soft tissues in continuity from the periosteum to, and including the skin. 2. Violence necessary to produce a compound fracture of the bones of an extremity must be very great; hence the traumatism is extensive. Commonly the bone is comminuted and the laceration of the soft tissues very severe. 3. Compound fractures are practically always infected wounds. 4. The management of these injuries must include the treatment of a fractured bone and the treatment of a more or less infected lacerated wound of the soft tissues of the same area." The general condition of the patient as well as the injury must be considered and the treatment should be adapted to the circumstances of each case. Stimulants, exclusive of alcohol, and analgesics are needed as well as the control of hemorrhage. Estes advises the avoidance of tourniquets if possible. Elastic constriction is better and if tourniquets are used it should be at some distance from the injury. The wound must be protected aseptically and great care used to prevent infection by handling, etc. No attempt should be made to set the bone at this time. Careful fixation in the position assumed by the injured limb should be employed unless it is clear that the ends of

the fragments are so placed as to do damage. The first consideration of the surgeon should be what is best for the patient, taking into account what is best for his individuality, circumstances and occupation and what treatment will insure the least disability and give the best functional result; the constitution and environment have very important bearings. A compound fracture is almost always an infected wound, and Estes emphasizes the value of iodin for disinfecting soiled skin. Iodin is effective only when on a dry skin and hence it should be cleansed with benzin or ether and carefully dried. The nature of the required operation is first to be considered. Amputation is indicated if there is three-quarters of the periphery over the fracture damaged so that it is liable to slough and the muscular tissues below are badly lacerated or comminuted. If there has been a circular or annular pressure on the whole periphery of the limb, or if the bones are comminuted or loose or have lost their periosteum so that practically 3 inches of the shaft is destroyed together with skin or muscle laceration, this also indicates amputation. The final condition of the limb is also important. Sometimes a limb can be saved which would be useless and often in the way, and the patient might prefer amputation. Conservation is sometimes more hazardous than sacrificing a part. If conservation is decided on, however, thorough cleansing and disinfection must be done and an extension apparatus is often very useful for this purpose. As little direct manual manipulation as possible is advised. Direct fixation of the fragments is always best, and a rigid bone splint or plate is better than wiring. Certain metals are more or less bactericidal, and since 1886 Estes has used a Wessel silver plate

and Wessel silver pegs to fasten the plate to the fragments. Vascular implantations and anastomoses are impracticable in these cases but drainage is all important and it should be done in such a way as to avoid all tension and harmful pressure in the wound. When all these things are provided for a masse dressing of dry absorbent material should be applied and should be left on for several weeks, and over all a gypsum splint with flexible strips worked into it should be placed so as to give support and elasticity to the dressing. When the dressings are removed it is his custom to remove the pegs and the plate if the wound is open to permit it, otherwise it can be left as it does not cause irritation. An analysis is given of fifty-one cases of compound fractures, and the results as regards disability, etc., are reported.

New and Non-Official Remedies.

Since publication of New and Nonofficial Remedies, 1914, the following articles have been accepted for inclusion with "N. N. R." Those accepted during the current month are made prominent by the use of capitals.

H. M. Alexander and Co.—Normal Horse Serum; Typhoid Vaccine, Immunizing.

Antiseptic Supply Co.—Causticks; Caustick Applicators; Cupristicks; Stypticks; STYPSSTICK APPLICATORS, ALUM 75%.

Arlington Chemical Co.—Arleo Urease.

Comar and Cie.—Electrargol; ELECTRARGOL FOR INJECTION 10 Ce. AMPULES.

Farbwerke Hoechst Co.—Amphotropin; Erepton.

Fairchild Bros. and Foster—Trypsin.

Franco-American Ferment Co.—Lactobacilline Tablets; Lactobacilline Liquide;

Culture A; Lactobacilline Liquide, Culture D; Lactobacilline Liquide, Infant Culture; Lactobacilline Glycogene Tablets; Lactobacilline Glycogene Liquide; Lactobacilline Milk Tablets; Lactobacilline Milk Ferment; Lactobacilline Suspension.

Hoffmann-LaRoche Chemical Works— Thiocol; Syrup Thiocol, Roche; Thiocol Tablets.

Hynson, Westcott and Co.— Phenolsulphonephthalein, H. W. and Co.; Phenolsulphonephthalein Ampules, H. W. and Co.

UREASE-DUNNING.

Merck and Co.—Cerolin.

H. K. Mulford Co.— Acne Serobacterin; Anti-Anthrax Serum, Mulford; Antistreptococcus Serum Scarlatina, Mulford; Coli Serobacterin; Culture of Bulgarian Bacillus, Mulford; Disinfectant Krelos, Mulford; Neisser Serobacterin; Pneumo Serobacterin; Salicylos; Scarlatina Strepto Serobacterin; Staphylo Serobacterin; Staphylo Acne Serobacterin; Strepto Serobacterin; Typho Serobacterin.

Riedel and Co.—New Bornyval.

Reinschild Chemical Co.— Phenolphthalein Agar.

E. R. Squibb and Sons— Sodium Biphosphate, Squibb; Tetanus Antitoxin, Squibb; Tetanus Antitoxin, Squibb, 5,000 Units.

W. A. PUCKNER, Secretary,

Council on Pharmacy and Chemistry.

Since publication of New and Nonofficial Remedies, 1914, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies."

Electrargol.—Electrargol is a colloidal solution of silver, containing silver, equivalent to 0.25 per cent metallic silver. It is

said to be useful in febrile diseases, even in those which are not of a septic character. It is also used externally in inflammatory conditions. For subcutaneous, intramuscular or intravenous injections Electrargol is supplied as Electrargol for Injection in ampoules containing 5 Cc. For external use electrargol is supplied as Electrargol for Surgical Use in bottles containing 50 Cc. (Jour. A. M. A., June 6, 1914, p. 1808).

Refined and Concentrated Tetanus Antitoxin.—Marketed in packages containing 5,000 units (curative dose) put up in syringe containers. E. R. Squibb and Sons, New York (Jour. A. M. A., June 13, 1914, p. 1890).

Culture of Bulgarian Bacillus, Mulford.—A pure culture in tubes of the *Bacillus bulgaricus*. It is designed for internal administration for the purpose of establishing lactic acid-producing bacilli in the intestines and for external use. H. K. Mulford Co., Philadelphia, Pa. (Jour. A. M. A., June 13, 1914, p. 1890).

Lactobacilline Tablets.—A pure culture of the *Bacillus bulgaricus*. These tablets give rise to the production of considerable quantities of lactic acid, which tends to restrain the growth of putrefactive organisms in the intestines. Franco-American Ferment Co., New York (Jour. A. M. A., June 13, 1914, p. 1890).

Lactobacilline Liquide, Culture A.—A pure culture in tubes of the *Bacillus bulgaricus* grown in a neutralized sugar bouillon, each tube containing from 5 to 6 Cc. Its actions and uses are the same as those of Lactobacilline Tablets. Franco-American Ferment Co., New York. (Jour. A. M. A., June 13, 1914, p. 1891).

Lactobacilline Liquide, Culture D.—A pure culture in tubes of the *Bacillus bul-*

garicus grown in a neutralized bouillon. Its action and uses are the same as those of Lactobacilline Tablets. Marketed as Lactobacilline Liquide, Culture D., Small containing 5 Cc., and Lactobacilline Liquide, Culture D., Large containing 16 Cc. in each tube. Franco-American Ferment Co., New York (Jour. A. M. A., June 13, 1914, p. 1891).

Lactobacilline Liquide, Infant's Culture.—A pure culture in tubes of the *Bacillus bulgaricus* in a whey medium. It is employed in the treatment of diarrhea or dysentery in nursing infants or young children. Franco-American Ferment Co., New York (Jour. A. M. A., June 13, 1914, p. 1891).

Lactobacilline Glycogene Tablets.—Tablets containing pure cultures of the *Bacillus bulgaricus* and the *Glycobacter peptolyticus*. The *Glycobacter peptolyticus* transforms into sugar the amyloseous substances in the diet, thereby furnishing a pabulum for the *B. bulgaricus*, which in turn transforms the sugar into lactic acid. These tablets are designed for the prevention and treatment of intestinal diseases. Franco-American Ferment Co., New York (Jour. A. M. A., June 13, 1914, p. 1891).

Lactobacilline Milk Tablets.—Tablets containing pure cultures of the *Bacillus bulgaricus* and *Bacillus paralacticus*. These tablets are used in the preparation of scientifically soured milk. Franco-American Ferment Co., New York (Jour. A. M. A., June 13, 1914, p. 1891).

Lactobacilline Suspension.—A pure culture in tubes of the *Bacillus bulgaricus* grown in a neutralized bouillon medium. This culture tends to inhibit the growth of deodorant, putrefactive and pathogenic organisms and is used externally in various suppurative conditions. Marketed as

Lactobacilline Suspension, containing 5 Cc. and Lactobacilline Suspension, Surgical, containing 20 Cc. in each tube. Franco-American Ferment Co., New York (Jour. A. M. A., June 13, 1914, p. 1891).

Lactobacilline Milk Ferment.—A pure culture in tubes of the *Bacillus bulgaricus* and *Bacillus paralacticus*. Its actions and uses are the same as those of Lactobacilline Milk Tablets. Franco-American Ferment Co., New York (Jour. A. M. A., June 13, 1914, p. 1891).

Propaganda for Reform.

Scopolamin-Morphin Anesthesia.—McClure's Magazine for June contains a sensational account of the use of scopolamin-morphin in anesthesia as used by Kromig and Gauss at Frieburg. In America the scopolamin-morphin anesthesia has received little attention. It is far from safe and can be carried out only in hospitals. Morphin and scopolamin should not be used in fixed proportions. (Jour. A. M. A., June 6, 1914, p. 1815 and 1829).

Glyco-Heroin, Smith.—A report of the Council on Pharmacy and Chemistry explains that Glyco-Heroin, Smith, although containing 1-16 grain heroin to the teaspoonful, is exploited in a way to encourage self-drugging by the layman. The advertising matter suggests the administration of Glyco-Heroin, Smith to children and much of it has contained the evident falsehood that this heroin mixture does not produce narcotism or habituation. The possibility of habit formation should be sufficient to induce the thoughtful physician to avoid the use of Glyco-Heroin, Smith (Jour. A. M. A., June 6, 1914, p. 1826).

Wine of Cardui.—The Chattanooga Medicine Company claims that no more alcohol is used in Wine of Cardui than is

needed to preserve it and that it cannot be used as a beverage. In view of this the terms "booze" and "tipple" cannot be applied to the preparation (Jour. A. M. A., June 6, 1914, p. 1827).

Cystogen.—At a meeting of physicians recently, the question was asked: Why is Cystogen, which is just plain hexamethylenamin, not recognized by the Council on Pharmacy and Chemistry? The answer is simple: Because the therapeutically suggestive title as well as the method of exploitation encourage its indiscriminate and ill-advised use, both by the medical profession and the public (Jour. Mo. State Med. Assn., June, 1914, p. 473).

Buffalo Lithia Water.—The fallacy that diseases are due to uric acid and the fallacy that lithium would eliminate the uric acid has made mineral waters highly profitable—even when lithium was present only in infinitesimal amounts. One of the most widely used "lithia waters" was Buffalo Lithia Water, later called Buffalo Lithia Springs Water which has been declared misbranded by the Federal Courts because it was shown to contain less lithia than does Potomac river water and that a person would have to drink 150,000 to 225,000 gallons of the water to obtain an ordinary dose of lithia. The testimonials certifying to the high efficiency of Buffalo Lithia Water and its superiority to lithium compounds given in the past by physicians eminent in their profession, certify to the unreliability of clinical observations (Jour. A. M. A., June 13, 1914, p. 1909).

The Absorption of Iron.—The belief that organic compounds of iron were superior to inorganic iron salts arose before it was known that the bowel forms the most important channel for the excretion of this element, whence the failure to find an in-

crease in the amount of iron eliminated with the urine by means of the kidneys after ingestion of the element in some form or other was taken as an indication that it had not been absorbed. Today it is known that iron can be absorbed and excreted by the intestinal wall. Experiments have demonstrated that both inorganic and organic iron can be absorbed and satisfactorily carry out the purposes for which iron is administered (Jour. A. M. A., June 13, 1914, p. 1913).

Prophylaxis of Tetanus.—The following procedure is advised: Remove every particle of foreign matter from the wound. Dry the wound and treat every part with iodin or cauterize it with a 25 per cent phenol solution and apply a wet pack saturated with boric acid solution or alcohol. Inject as soon as possible, intravenously or subcutaneously, 1,500 units of antitetanic serum and repeat the injections if indications of possible tetanus arise. In no case close the wound, but allow it to heal by granulation (Jour. A. M. A., June 20, 1914, p. 1964 and 1971).

Beef, Wine and Coca.—This preparation, sold by Sutliff, Case and Co., Peoria, Ill., was claimed to contain about 15 per cent. alcohol and 1-5 of a grain of cocaine to the fluidounce. It was found to contain 23.75 per cent of alcohol by the federal authorities and accordingly declared misbranded by the courts (Jour. A. M. A., June 20, 1914, p. 1981).

Malt-Nutrine.—This product of the Anheuser-Busch Brewing Association was declared misbranded by the government authorities because the label claimed that it was a highly concentrated extract of malt, which was untrue. Malt Nutrine was found to contain 1.6 per cent alcohol and extravagant therapeutic claims were made

for it (Jour. A. M. A., June 20, 1914, p. 1981).

Manadnock Lithia Water.—While extravagant curative claims were made for this "lithia water" examination showed it to contain only traces of lithia and hence it was declared misbranded under the Food and Drugs Act (Jour. A. M. A., June 30, 1914, p. 1981).

Buckhorn Lithia Water.—This water was declared misbranded by the federal authorities because false curative claims were made for it and because it did not contain enough lithia to be entitled to its name. (Jour. A. M. A., June 30, 1914, p. 1981.)

Sun-Ray Sparking Water.—While represented to the "the world's purest water," it was water to which sodium chloride, sodium bicarbonate and carbon dioxid had been added. Accordingly the company which sold the water was found guilty of misbranding under the Food and Drugs Act. (Jour. A. M. A., June 30, 1914, p. 1981.)

Hieura Mineral Water.—This was declared misbranded because it was not a natural mineral water as claimed. (Jour. A. M. A., June 20, 1914, p. 1982.)

Liquid Altolene.—This is a light variety of liquid petrolatum marketed as a proprietary medicine, exploited in an abjectionable manner and with more or less misleading claims. It is said to come from Russia and differs from American products in being entirely non-fluorescent—an immaterial difference. (Jour. A. M. A., June 27, 1914, p. 2048.)

Raymond's Pectoral Plasters.—These are exploited untruthfully as "positive cures" for whooping cough, bronchitis, etc. (Jour. A. M. A., June 20, 1914, p. 1982.)

Book Reviews

Practical Therapeutics

PRACTICAL THERAPEUTICS, Including Materia Medica and Prescription Writing, With a Description of the Most Important New and Nonofficial Remedies Passed upon by the Council on Pharmacy and Chemistry of the American Medical Association. By Daniel M. Hoyt, M. D., formerly Instructor in Therapeutics, University of Pennsylvania; Fellow of the College of Physicians; Assistant Physician to the Philadelphia General Hospital. Second edition, revised and rewritten. C. V. Mosby Company, St. Louis, 1914. Price \$5.00.

The first part of the book is arranged according to the physiological actions and therapeutic uses of drugs, which are concisely stated and available for quick reference. There is a valuable chapter on Proprietary Medicines and Dispensing. The second part deals with new and non-official remedies, taken up alphabetically. The third part is an index of drugs giving in brief their source, description, preparations, doses and uses. Vaccines and sera receive due consideration. The book is practical and worthy of a place in a medical library.

E. C. P.

Progressive Medicine.

PROGRESSIVE MEDICINE, A Quarterly Digest of Advances, Discoveries, and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., assisted by Leighton F. Appleman, M. D. Volume 11, June, 1914. Hernia, by William B. Coley, M. D.; Surgery of the Abdomen, Exclusive of

Hernia, by John C. A. Gerster, M. D.; Gynecology, by John G. Clark, M. D.; Diseases of the Blood, Diathetic and Metabolic Diseases, Diseases of the Thyroid Gland, Spleen, Nutrition, and the Lymphatic System, by Dr. Alfred Stengle, M. D.

Dr. Coley reviews very thoroughly the literature upon the varied herniae. Special attention has been given to the technique of closing femoral hernia. Included in this article is the surgery of the testis as related to hernia. It is well compiled, practically presented, and the chapter concludes with a presentation of the rare forms of herniae. The next chapter is devoted to the Surgery of the Abdomen, Exclusive of Hernia, presented by Dr. Gerster. This department opens with the presentation of a resume of the literature relating generally to general abdominal surgery. Following this is a presentation of work done upon the separate abdominal organs, with ample attention and space devoted to each respective organ. The chapter upon Gynecology is prepared by Dr. John G. Clark. This begins with the cancer problem—of the uterus. Radiotherapy in its application and technique in relation to the treatment of cancer, is extensively reviewed, and receives the greater attention and space. Following this we find a review of the operative procedures employed. A general treatment upon the individual organs—uterus, ovaries, tubes, and the lower genital tract with the gonorrhreal and syphilitic infections; and closing with divisions devoted respectively to the female urinary system, and to miscellaneous topics. Diseases of the blood, diathetic and metabolic diseases, diseases of the thyroid gland, nutrition, and the lymphatic system, by Dr. Stengel, is well edited. Considerable space and

attention is given to the blood, its diseases, and treatment, followed by a like treatment of the diathetic and metabolic diseases, scurvy, gout, and diabetes. A division devoted to the ductless glands, chromaffin system, and the interrenal tissue, closing with the interrelationship of the ductless glands.

Ophthalmology by Dr. Edward Jackson does not receive as much space as do the other divisions of this issue. The review is thorough, however, and it is well presented. Beginning with the use of the ophthalmoscope, he next takes up the diseases of the conjunctiva, cornea and sclera; anterior chamber, pupil, and uveal tract; glaucoma; crystalline lens and vitreous; retina, optic nerve, and visual tracts; lids, lachrimal apparatus, and orbit. Each is presented with an exhaustive review, which is greatly of foreign literature. There is a complete index of the issue concluding the work.

T. C. S.

MEDICAL GYNECOLOGY. By S. Wyllis Bandler, M. D., Adjunct Professor of Diseases of Women, New York Post-Graduate Medical School and Hospital. Third Thoroughly Revised Edition. Octavo of 790 pages, with 150 original illustrations. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$5.00 net; Half Morocco, \$6.50 net.

The most valuable addition to this new revised third edition of Bandler's Medical Gynecology is the chapter on Internal Secretions. The relation of the various pathologic and normal states in woman are thoroughly discussed and reference is made to the work of such men as Cushing, Kermmauner, Novak, Biedel and others.

In addition to the above, all the good points of the former editions are retained and much new matter added.

This is a most excellent book and one that should be in the library of every general practitioner.

THE CLINICS OF JOHN B. MURPHY, M. D., at Mercy Hospital, Chicago. Volume III, Number II. Octavo of 213 pages, 55 illustrations. Philadelphia and London: W. B. Saunders Company, 1914. Published Bi-Monthly. Price per year: Paper, \$8.00; Cloth, \$12.00.

Each new edition of Murphy's Clinics makes them more and more interesting and valuable.

The second number of the third volume is before us and we have been particularly impressed with the opening lecture on Surgical and Clinical Diagnosis.

A variety of subjects is treated in this issue, all in doctor Murphy's instructive way, serving to add to the reader's store of practical knowledge.

It is never too late to do a good thing and therefore we say to those of our readers who have not seen Murphy's Clinics that they are missing much by not ordering now.

THE MOTHER'S GUIDE IN THE CARE OF INFANTS, By Henry Towne Safford, M. D. H. L. & J. B. McQueen, Inc., Washington, D. C. Copyright, 1913. Distributed by Pass City Publishing Company, El Paso, Texas. Obtainable from Dr. Safford, Roberts-Banner Bldg., El Paso, Texas. Price \$1.00.

Probably no one realizes better than physicians how necessary it is for mothers to be well informed on the subject of the proper care of children. Many lives are lost through the lack of this information. The author states in his "Foreword," "In no sense is this little 'Guide' intended to take the place of the physician, but only

to serve as an aid to him, in curing and especially in preventing the diseases of infancy." This little book is full of practical hints to mothers which are clearly stated. Part I deals with the "Young Baby" or early infancy, and the second part with the older or "Teething Baby." The last two chapters are practical, and are entitled "Formulary," and "Nursing Suggestions." We can recommend it.

E. C. P.

ANATOMY AND PHYSIOLOGY OF THE EYE AND ITS APPENDAGES. By John Wesley Croskey, M. D., Ophthalmic Surgeon to the Philadelphia General Hospital. Smith-Edwards Company, Philadelphia.

Dr. Croskey has compiled a very useful pamphlet in the study of anatomy and physiology of the eye and its appendages, and it is especially useful for the purpose for which it is printed, that is, the use of the students. Naturally it is a compilation rather than original work. He seems to have failed in not putting more emphasis on the relationship between the sinuses of the nose and of the eye, this being one of the big fields in surgery of the eye and nose at the present time.

ANNUAL REPORTS OF THE CHEMICAL LABORATORY OF THE AMERICAN MEDICAL ASSOCIATION. Vol. 6, Jan.-Dec., 1913. A. M. A. Press, Chicago, Ill., 25 cents.

The present volume includes the work of the past year, which has been carried out on the same lines as in previous years.

The subject matter is presented under three headings:

1. Contributions from the Chemical Laboratory of the American Medical Association.

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2. Reports abstracted from the Journal of the American Medical Association.

3. Unpublished work of the Laboratory.

These reports should be in the hands of every physician and we advise our readers to keep posted along the lines of the work against the Great American Fraud being done by the laboratory of the American Medical Association.

The price of this booklet is twenty-five cents and it may be had by writing to the Chicago office of the Association.

The Pathogenesis of Salvarsan Fatalities.

By Sanitats-Rat. Dr. Wilhelm Wechselmann, Directing Physician of the Dermatological Department, Rudolph Virchow Hospital in Berlin. Authorized Translation by Clarence Martin, M. D., First Lieutenant M. R. C., United States Army; Late Clinical Assistant, St. Peter's Hospital for Stone and Other Urinary Diseases, London; Member Association Military Surgeons, Berlin Urological Society, etc. St. Louis, Mo. The Fleming-Smith Company, Medical Publishers, St. Louis, U. S. A. Cloth, Price \$1.50.

This book, written by a member of the profession who has had a vast experience in salvarsan therapy, is full of most use-

ful information and a careful reading of it will more than repay one who administers salvarsan.

The various causes of death from the use of the drug are carefully analyzed and the means for reducing the dangers to a minimum are considered.

The distinguished author seeks to impress the necessity for greater precaution in the use of salvarsan and names these precautions as follows:

1. The most exact technique.

2. A dose of the drug carefully adapted to the individual case.

3. Careful observation of the urinary secretion when employing salvarsan; resorting to the most exact chemical and microscopical examination of the urine. combined treatment is employed.

4. The conjoint use of salvarsan with heavy mercurial treatment is dangerous! If one will use the combined treatment, then give mercury very carefully many days after the last salvarsan injection, but never reverse this rule!

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The Treatment of Hay Fever.

We are approaching the season when the services of the physician will be urgently demanded by the victim of vasomotor rhinitis—a season dreaded not alone by the patient, but, not uncommonly, by his medical adviser as well. Particularly is this true of the latter if he has not kept abreast of modern ideas on the therapy of hay fever. In any event the disease is one that tries the patience and calls for the application of remedial agents that have been proved beyond peradventure.

In the treatment of hay fever the physician rarely has an opportunity for the application of preventive measures. His help is not usually sought until after the attack has manifested itself—when the patient is suffering (acutely, in most cases) from the ravages of the disease. Prompt, effective treatment is then demanded. Administration of the suprarenal substance in the form of its isolated active principle, Adrenalin, is undoubtedly the

wise procedure at this juncture. One feels safe in saying this in view of the long, efficient service which has been rendered by this agent in critical emergencies.

Hay fever is now recognized as a neurosis in which the morbid cycle is the irritation of a hypersensitive area in the nasal chamber by a foreign particle, the dilatation of the local capillaries, and turgescence of the turbinal tissues—resulting in a catarrhal inflammation of the nasal mucous membrane. While not a specific in the strict meaning of the word, Adrenalin controls the symptoms effectually and secures for the patient a marked degree of comfort. Topically applied, it constricts the capillaries; given internally, it acts directly on the heart and arterioles, restoring the vasomotor equilibrium and ultimately manifesting its effects upon the nasal tissue.

Adrenalin Chloride Solution and Adrenalin Inhalant are the forms in which the substance is administered topically. The

first mentioned should be diluted with four to five times its volume of physiologic salt solution, the latter with three to four times its volume of olive oil. The preparations are applied in spray form to the nares and pharynx. Any good atomizer adapted to the use of oily or aqueous substances is suitable for the purpose.

Sugars in Infant Feeding.

One does not have to delve very deeply into the literature of American pediatrics of today to see that we are fast following in the footsteps of the Germans in regard to milk modifications and especially latterly with regard to the sugar content. Not many years ago high proteids were the *bete noire* of all those who were called in to assist in feeding a child artificially. Rather recently it was declared, and on good authority, that many of the so-called proteid curds that we were finding in our diarrhoeal cases were in reality made up largely of fat and so we had to diminish our fat and increase the proteid in order to maintain the lever of nutrition necessary for a normal weight curve. So we arrived at a simpler and more rational modification by the use of whole milk and water in varying proportions to suit the individual case, the carbohydrate being supplied by the addition of varying amounts of lactose. Within the last year or so we came to realize, largely through the help of the Germans, that we can still further simplify our modification by the withdrawal of lactose and the substitution of malt sugar, either as maltose alone or better yet in combination with dextrin as maltose dextrin, a sugar that is much more readily assimilated than lactose.

Leopold, of New York, has recently published a preliminary report on the use of maltose-dextrin in infant feeding with sev-

eral case histories appended, and reviews the work on sugars in infant feeding up to the present time.

Years ago Escherich ascribed intestinal fermentation to the milk sugar used in milk mixtures, and fifty years ago Jacobi, for practically the same reason, advocated the use of cane sugar in preference to lactose. More recently and today, however, the latter gentleman defines his policy as in favor of less fat, less sugar and more carbohydrate in the form of starches.

To Finkelstein, however, belongs the credit of more clearly describing the role of the sugars in infant feeding, when he proved that sugar—whether it be lactose, maltose, saccharose or glucose—when given with food, might cause elevated temperature and dyspeptic stools in infants, such symptoms readily disappearing on the withdrawal of the sugar. Indeed, he showed that very small quantities of sugar could cause the severest grade of alimentary intoxication in susceptible infants.

Lactose, saccharose and maltose are the sugars most commonly used in infant feeding, the last named usually in combination with dextrin because of the high cost of pure maltose. All three are disaccharids, convertible by their ferments into monosaccharids before being utilized in the body. Lactose and saccharose have ferments lactose and saccharose occurring exclusively in the intestinal tract, which do not act on any portion of their respective sugars that pass through the intestinal wall and hence permit of such sugars passing through the kidney and into the urine as such. The ferment maltose, however, occurring in other parts of the body, readily acts on whatever maltose goes through the intestinal tract and this probably accounts for the more ready assimilation of this sugar, as well as its rapid absorption

and lessened fermentation. It is well known that infants can tolerate twice as much maltose as lactose or saccharose without sugar appearing in the urine.

The literature contains varying expressions of opinion as to the comparative values of the different sugars in infant feeding, most German authorities recommending malt sugar, but Heubner, Czerny-keller, and others, still use milk sugar, as have most American authors, with the exception of Jacobi, Abt and Koplik. Langstein-meyer and Finkelstein recommend the maltose-dextrin preparations.

In view of the diversity of opinion Leopold decided to test experimentally the effect of the various sugars on a large number of infants, considering the question of the effect of the various sugars given by mouth on the temperatures, weight curve and stools. Chemically pure lactose, maltose, saccharose and glucose; and two German mixtures of maltose and dextrin, were used.

From his experiments the author came to the conclusion that a combination of about equal parts of maltose and dextrin produced less frequently a rise of temperature and dyspeptic stools, and more frequently a consistent weight gain than lactose, maltose, saccharose or glucose. No such American made product being on the market, Leopold had Mead, Johnson & Co. make a preparation containing maltose 51 per cent, dextrin 47 per cent, and sodium chlorid 2 per cent. This preparation has been named dextrin-maltose and is the one the author has been using at his milk station of the New York Milk Committee, and also at the Post-Graduate Hospital.

The history of Case III serves well to emphasize the beneficial effect of the preparation:

C. S., aged 5 weeks, weight 7 pounds 15

ounces. Rather well developed child. Physical condition negative. Child very pale. Had been getting breast-milk for four weeks, during which time it gained only 9 ounces. Put on a mixture of one part of milk and two parts of barley water, with one-half ounce of cane sugar for three weeks. During this time it gained one pound. The sugar was then increased to 1 ounce and during the next ten weeks the infant gained 3 pounds, a weekly gain of about 5 ounces. It was then given the same mixture but dextrin-maltose was substituted for the cane sugar. During 5 weeks the infant gained about 5 ounces weekly. Cane sugar was then substituted for dextrin-maltose for one week, during which time the infant lost four ounces. It was then put on dextrin-maltose again, and gained 5 pounds 4 ounces in fifteen weeks, or nearly 6 ounces per week. It was then put on cane sugar for one week and gained only two ounces. Dextrin-maltose was again substituted for the cane sugar, and the infant gained 13 ounces in one week. The stool remained normal during the entire time, and the child showed a remarkable improvement.

The cases are still under observation and Dr. Leopold promises a further report.

One of the unmentioned advantages of the maltose substitution for the lactose is the fact that it is slightly laxative and in consipated babies can be regulated in dosage to meet the needs of the bowels.

In view of the excellent results obtained in Germany with Koller's malt soup (which in reality is a preparation of maltose) and various maltose-dextrin preparations, it is sincerely to be hoped that the pediatricians of our country will try the question out thoroughly and publish their results in detail.—Copy, Editorial from Jour. Ind. State Med., Nov. 1911.



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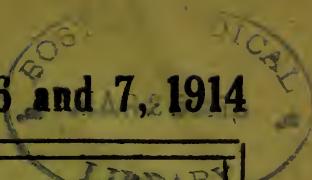


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All communications to this publication must be made to it exclusively. It will be more satisfactory to all concerned if contributions are typewritten.

Secretaries of county societies are earnestly requested to report their meetings, including the subject matter of the papers presented and the substance of the discussions.

Marked copies of local newspapers, or clippings containing matters of interest to the profession will be gratefully acknowledged. The name of the sender should be given.

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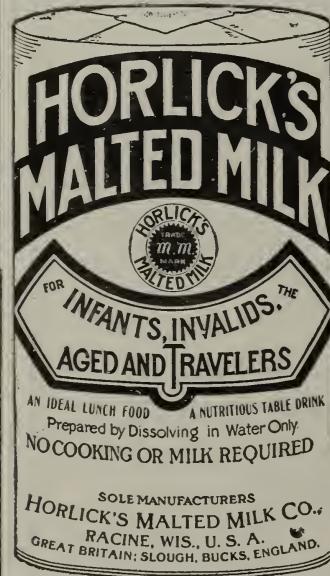
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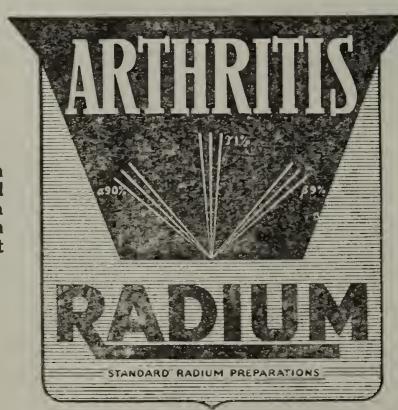
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The New Mexico Medical Journal

Volume XII

AUGUST, 1914

No. 5

E · D · I · T · O · R · I · A · L

The New Mexico Medical Journal is not responsible for the opinions expressed by any of its contributors.

Are you making your arrangements to attend the annual meeting?

The program will be published in our next issue and will be a particularly good one. The Bernalillo County Medical Society is making preparation for a good time and a large attendance.

The State Fair will be "ON" and reduced rates on all the roads leading to Albuquerque will be in effect. Take advantage of this opportunity to get together for the "good of the order." Remember the dates, October 5th, 6th and 7th.

Twice within three days one of the members of the New Mexico Medical Society had occasion to patronize one of the advertisers of the Journal and each time his letter ended "credit the New Mexico Medical Journal with this order." Do you do this each time you write to one of the advertisers? Do you give the preference to the advertisers in the Journal when needing something they can furnish you? The life of this Journal depends upon its advertisers and we cannot refrain from again calling your attention to this fact. Please say you saw it in the Journal and when possible, please, give our advertisers the chance to serve you. Remember the Journal accepts only such advertisements as are up to standard.

The Florida Medical Journal is the latest addition to the ranks of state journals. This publication is issued monthly under the direction of editor Graham E. Henson, M. D., secretary of the Florida Medical Society. We welcome this new state Journal.

DIET IN TUBERCULOSIS.

There appear in this number of the Journal two very good articles on special phases of the tuberculosis problem, which are highly appreciated by the writer. We have been impressed by the fact that so much attention has been given to the minutiae of certain aspects of this question, and so little to one of the most essential points of treatment. Tuberculosis experts become thoroughly familiar with the intricacies of the theories of infection and immunity, especially those related to the tubercle bacillus and the tubercular patient, including that elusive question, the administration of tuberculin, yet devote insufficient thought and attention to the diet.

The literature on artificial pneumothorax is already large, and an international society devotes its attention entirely to that. We do not wish to detract from the great value of open air, hygiene, and physical and mental rest, but we do think that more care should be used in seeing that patients

get what they should have to eat, which is often an exceedingly difficult proposition here in the southwest.

The feeding of tubercular patients is at least as important as the most important other factor of treatment. No one will question the great value of a proper diet for these patients, although many doubt the efficacy of climate, tuberculin, drugs and certain other procedures. If physicians would devote as much time and study to informing themselves on the metabolism and food needs of tubercular patients, articles of diet and their preparation, time and conditions of eating, and normal digestive processes as they do to certain special phases of the subject of doubtful (according to some authorities) value we would get better results than we do now. Our role, in many of these cases should not end with giving advice; we can frequently be of great assistance in seeing that the patient actually gets what is ordered. The quality of food served should be first class and its preparation FAULTLESS. We know too well how frequently the opposite is the case, and when this is true there is the ever-present danger of infection from the typhoid and para-typhoid bacilli and the dysentery organisms; we all know how dangerous these infections are under such circumstances.

There are many other factors of importance in the proper dieting of tubercular patients, but as this is not intended as an original article on that subject, they will only be mentioned. Psychic factors: pleasant conditions at the table, and in fact at all times, help digestion, and the opposite interfere with it. The digestive capacity of the average patient is below his normal,

and he should not be expected to eat, and profit by, what a strong and healthy man at hard labor needs. Institutions devoted to the treatment of tuberculosis should employ an expert dietitian who should have complete charge of the buying of food products, and their preparation and serving. A failure to do this is poor economy.

The financial condition of the patient is extremely important. If a patient has not enough money to pay for good food, etc., and he has anything but a light case and a naturally fairly strong constitution, he can look for hard times, indeed.

We hope that this little editorial will not be understood as minimizing the value of study along all lines of tuberculosis work, but we do wish to emphasize the importance of the proper feeding of tubercular patients.

E. C. P.

We call the attention of our readers to the advertisement of The Uncle Sam Breakfast Food Company which appears regularly in each issue and suggest that they use the coupon which is conveniently placed for clipping. The Uncle Sam Breakfast Food has passed a critical examination and has complied with all the requirements of the Council on Chemistry and Pharmacy of the A. M. A., and deserves the support of the profession. It is a real laxative breakfast food which is palatable as well as nutritious. We have ourselves used it and speak from experience. Use the coupon and try it yourself.

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nals and if our readers are not familiar with its use a line to the firm will bring literature which will be instructive and contain much useful information.

Are you using radium? We carry in our columns the advertisement of the Radium Chemical company which markets radium in various ways. They also publish a monthly Journal which they will be glad to mail you if you will send your name and say you saw it in our Journal.

Horlick's Malted Milk needs no introduction to our readers as it has stood the test of time. Note their advertisement in this issue.

The Battle Creek Sanitarium offers you a copy of their booklet. Use the coupon.

Clippings

THE DOCTOR AND HIS HORSE.

The classic portrayals of the Doctor usually show him on or behind a venerable or unimpeachable horse, plodding his tedious way through wind and weather. Or perhaps the picture shows him leaving the faithful steed at the gate and hurriedly seeking access to the house of suffering. Even in Luke Field's well known picture, "The Doctor," found on so many walls, one can feel very certain that the rugged figure arrived on horseback, and that the faithful beast is patiently waiting for him just outside.

But nowadays the Doctor has no such companion on his rounds. If disposed to soliloquize along the road his

monologue now seldom falls on an appreciative equine ear. If he would have an objective to which to address his musings, he must be content with such ears as may be found under the steel bonnet of his motor car. I fear that little sympathy is found there with such converse as Dr. Weelum MacLure was wont to hold with his faithful Jess: "It'll take ye a' yir time, lass,—but ye never failed me yet, and a wumman's life is hangin' on the crossin'."

I do not pretend that the successor to the Doctor's horse does not elicit or even invite occasional deliverances from him. I have known physicians of my acquaintance to even dismount in order to more intimately address themselves to their motors, which in turn seemed attentively to pause the more appreciatively to listen. But I am sorry to note that the tone of address at such times was scarcely confidential, nor were the terms employed to be considered endearing, but rather ejaculatory and imprecative.—(Journal of the Kansas Medical Society, Aug., 1914.)

"BETTER BABIES, BETTER MOTHERS, BETTER CITY."

The slogan of better babies, better mothers, better city, has resounded from the billboards, and the City of New York has given an entire week to promulgating the best interests of infancy as related to the development of future citizens.

The age of the child is truly upon us. The interests of the community have been aroused and there is now a full recognition of the importance of

protecting infancy, particularly in view of a decreasing birth rate. The United States is slowly awakening to the value of children as it is now appreciated in France, Germany, and England.

No one week, however, should be set aside as the baby week, save for the purpose of concentrating interest and stimulating constructive plans for the betterment of the conditions of childhood. Every week should be babies week and every day should be considered important for the continuation of the numerous activities demanded for the protection of childhood. The decrease of infant mortality redounds to the glory of intelligent, civic spirit. No plan of municipal betterment is complete, nor indeed fairly begun, unless the plans for conserving infant life are well laid. The medical aspects are of the utmost importance.

Better mothers means a better scheme of education and wider opportunity for parental instruction. Better city means improved housing conditions, more infant welfare stations, improved municipal hygiene, increased facilities for recreation, higher wages, purer food supplies, and the relief of pauperism. Better babies demand the expenditure of municipal funds.

Health is purchasable and to have better babies, better mothers and better cities demands a wise and sane constructive policy involving the investment by the city of funds whose dividends would be evidenced in better babies and more babies. A fundamental asset of city growth is found in the protection and conservation of infant lives.—(Medical Review of Reviews.)

ONLY A DOCTOR.

Who ever heard of looking at the stars through a microscope? It is hard enough to bring the star view closer through a telescope, and even then we know but little. Astronomers are modest folk; there's a tremendous lot they don't pretend to know; they are only astronomers.

And who knows man? Assuredly we do not; we are only a doctor. Man—historic man, man as he was—we do not know; we have only some telescopic images of him. Man as he is to be—his great development—what of that, and who knows? We don't; for we are only a doctor. And man as he is! Who knows anything about him unless they knew him as he was and as he will be? We know a tadpole, a fly, a bacillus; we have studied them through their generations; we know their life histories as species. What do we know of the species man? Little, very little; we are only doctors.

If disease is an entity, if all diseases are entities, we know them as we know a rock we study in the class in geology. But if rocks were living things, how little would we know of their past or of their future! Disease has a growth, a history; it changes type; it may progress or it may revert. Therefore who really knows very much about a disease? We do not; we are only a doctor.

Only a doctor, and a perturbed one at that! Do you ever long for the old regime, when we were only doctors, not scientists? Do you ever wish your families would come to you as they used to do when you were only a doctor? Do you ever get homesick for the old human and humane regime, the time before technic was king? We do,

we confess we do, for we are only a doctor. What a pleasant thing it is to be a medical grandfather to a dear little baby, at whose mother's birth you officiated years and years ago! How you love that child, to whose mother you have been a medical father confessor all these years! Yet how seldom these things happen to the scientist; he is *not* "only a doctor," but is a sort of medical plumber in the eyes of the people who "hire" him. Did you ever hear of any one loving a plumber, medical or other?

Yes, we are only a doctor; but sometimes we think—think of the time we were *not* "hired," think of the time when we were *the one* authority whose opinion was sought and whose advice was followed by our families; think, think, think of many things that were ours when we were only a doctor.

We have not changed, but the times have changed. We are only a doctor, despite these changes. And there are many, many more just like us—men who are only doctors. Think of the "only" men in your community. This one is only a preacher and pastor, but what a power he is for good! That one is only a lawyer, but he soon will be the judge. Another is only a business man, but his energy and thrift give employment to thousands. Yet another is only a teacher, but he has changed the whole spirit of the town. It is the "only" men who are the backbone of modern society.

So we are content to be only a doctor. Just now we are out of style. "Doctor" may mean anything or nothing, but "only a doctor" means a tremendous lot. Yes it does! It has meant a lot for thirty centuries, and will mean as much thirty centuries

from now. So let us who are only doctors wait in patience for our vindication. And it is coming! The great unrest is passing. The agitations are dying for want of fuel. Sane thoughtfulness is beginning to permeate society. The excesses are losing ground. The commonplace is asserting its role in life again. Extremes are losing out and *real work* is becoming good form.

An editor who is only a doctor has a hard row to hoe these days. Some people think he must be a sociologist; others believe he must be a propagandist; many tell him he must be a sort of sanctified (!) politician; many expect him to be an advanced scientist; a few want him to be a mere reporter of laboratory advances; a certain element among the technicians think his function is to be a booster for them; some of the manufacturing pharmacists regard him principally as an advertising convenience; all of the fadists want to claim him as their very own. But an editor who is only a doctor, who wants to write for doctors and have doctors write to him, who thinks and feels and longs as a doctor, who wants to be only a doctor in print as well as in his office, why does he not fit into a very large assortment of modern conceptions—noisy, blatant, assertive, belligerent things trying to drown out the voice of him who is only a doctor.

Doctor, we don't drown worth a cent; neither should you, even if you are only a doctor. Lets join the "ONLY" class in our respective communities, along with the preacher, the lawyer, the business man and the teacher; and "only a doctor" will soon again come to be a very honorable title.—(Medical Council, Aug., 1914.)

ATTACKS ON THE ANTI-TYPHOID VACCINE.

Some of the recent newspaper reports concerning the evil effects of the anti-typhoid inoculations are grossly misleading and likely to have a most unfortunate effect in prejudicing the public against this most beneficent procedure. In the case of the Mercer family of New York, in which the mother died and three children were reported seriously ill after the use of the vaccine, it now develops that the entire family were suffering from typhoid fever itself before and at the time that the serum was used.

The statement of the Brooklyn Board of Health as to the Mercer family said that on May 2 Robert F. Mercer, of 20 Crescent Place, East New York, who was dying of typhoid, had Dr. Sydney E. Smith of 78 Arlington Avenue, Brooklyn, inoculate Mrs. Mercer, her three children, and her sister, Mrs. Blanche Romer, of 452 Eleventh Street. The vaccine was obtained from the Brooklyn Board of Health and all five became ill. Since then the mother has died and two of the children are now in a critical condition.

On May 18, the official report says, Dr. Smith, after a consultation, diagnosed the illness of the patients tentatively as "anaphylaxis." On May 22 another consultation was held, at which were present Dr. Krumwiede and Dr. Nicoli of the Health Department Research Laboratory, Dr. Blatteis, pathologist of the Jewish Hospital, Brooklyn, and Dr. Smith. The clinical examination, afterward confirmed by laboratory investigation, showed that the children had typhoid fever, the result of infection prior to the immun-

izing injections. The report then goes on:

"Although the correctness of this diagnosis has been questioned, it may be stated that the Department of Health has abundant evidence to sustain its position. The blood examination made by Dr. Blatteis on May 21 showed a marked diminution of the white blood corpuscles with a relative increase in the proportion of the lymphocytes. This is characteristic of typhoid fever. In so-called "blood poisoning," due to contaminated vaccine or to infection introduced at the point where the injection was made, just the opposite condition is found in the blood—that is, there is an increase in the number of the white blood corpuscles and a relative fall in the proportion of the lymphocytes.

"Furthermore, in "blood poisoning," cultures made from the blood frequently show the presence of the contaminating germ. In this case such blood culture, made on May 20, remained entirely sterile. Moreover, the Widal test was positive even in dilution of blood 1 to 1,000. Such positive reactions are almost unknown after a single immunizing injection.

"Finally, on May 21, as conclusive evidence of the nature of the disease, the bacteriologist of the Research Laboratory of the Department of Health found that the intestinal discharges contained typhoid bacilli."

Of the case of Mrs. Mercer, who died after vaccination, the report says that it was of the classical type of typhoid fever and that her death was due to intestinal hemorrhage and shock. The Health Department is positive that all the cases thus discussed were due to typhoid infections and that the immun-

izing injections were in no way responsible for them.

Some of the newspapers subsequently made a great to do about the case of Private Bellenger, of Troop A, First Cavalry, N. G. N. Y., who was reported to be "in bad shape" after having been vaccinated along with the other members of the troop on May 27. The reaction was probably a little more severe than usual, but could not have amounted to very much, for on the next day he was reported "nearly well."

It is in the handling of these matters of great public moment that the great city dailies need a medical editor of wide educational attainments and sound common sense, that harm may not be done by the follies of the statements of untrained reporters.—(Lancet-Clinic, July 18th, 1914.)

SAFE AND SANE IN MEDICINE.

Progress in medicine, like progress in any other field of endeavor, is secured by proper use of the knowledge gained by patient endeavor of those that have gone before and those that are of our day. In our profession we have a peculiar difficulty in that it is often impossible to be sure of our facts—or rather it is impossible for us to be sure that what is presented to us as facts properly bears that stamp. The human element—and therefore the uncertain element—enters so largely into the great mass of material we call medical knowledge that we have to be constantly on our guard against a too ready acceptance of the teachings of the untrained or careless observer. The differences of opinion at the bedside,—with which we are so familiar, are but indicative of the multitudinous varia-

tions of our views in the broader field of medicine whether in the sick room or laboratory. We are constantly looking at objects from different viewpoints, and different viewpoints mean different interpretations, and a difference of interpretation in practical medicine may mean a different outcome for our patient. If knowledge of a case came to us all in the same form and with the same force—the personal element would still obtain in our use of that knowledge and the manner of drawing conclusions. And yet we must know that the truth should have only one way of being observed and only one conclusion is defensible. Until a pneumonia can be so diagnosed by every physician that sees it and a reasonably uniform treatment advised we are in an unsatisfactory position. So with gastric ulcer, or fracture of the hip or other pathology. It is only necessary to mention the matter to realize how far we are from uniformity in diagnosis or treatment. Only one diagnosis is right and only one treatment is best. No doubt we sometimes rather take a pride in the variety of opinions that are brought out in our medical societies. In a sense this is defensible. It at least means that there is no stagnation. But differences of opinion are to the writer often painful evidencies of inaccuracy of observation or illogicalness in deductions. They must necessarily mean that error is abroad and that we see through a very dark glass.

Osler, in the preface to his Text-Book of Medicine, uses the words "sound knowledge." It takes a shrewd man to know what is sound and dependable in the mass of stuff at our command. Good scientific training, a

mind open to new facts, and a decent capacity to doubt what somebody says, all have their part in the makeup of the physician that holds on to the largest share of "sound knowledge" and the least share of trash and bumblebee. By a process of elimination he learns whose opinions to respect and all new matter put to him he passes through the crucible of common sense and makes up his mind what he can afford to accept and apply at the bedside. If he has good judgment and is willing to learn by his own mistakes the truth soon appears, or at least enough truth to stamp him as worthy of his profession.

The practitioner—especially the one who lives remote from the centers of research—has placed upon him a special obligation to hold fast to what has been found worthy and to be critical of what is offered as new. "Safe and Sane" is a slogan no more appropriate to the observance of the fourth of July than to the practice of medicine, and in the long run—the only run worth preparing for—the doctor that can measure up to the meaning of these words is the greatest credit to his profession and the greatest help to his patrons. It is he that tests medical teaching for this quality of "soundness" and appropriates it accordingly. It is he that selects with care his books and journals and reads them. It is he that sidesteps all "isms" and fads. It is he that dumps the great bulk of his "samples" in the trash barrel. It is also he that deals fairly and squarely with his people, assuming no more knowledge than he has and no more skill than his fellow practitioner.—(Tennessee Medical Journal, July, 1914.)

Original Articles

IMPORTANT FACTORS IN THE PROGNOSIS OF PULMONARY TUBERCULOSIS.

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As difficult as it is to make even an approximate prognosis in tuberculosis, it is nevertheless a task with which the physician is repeatedly confronted. When the tuberculous patient comes to us, the first question he invariably asks after being examined is, "What do you think of my case?" or "Doctor, what are my chances of becoming cured?"

The question is, are we or are we not justified in giving him, along with the information concerning his condition, a prognosis of his case? Personally I believe that it is neither advisable nor justifiable to do so after the first examination, but when a reasonable length of time has passed, during which a careful study has been made of both the patient and the disease as it manifests itself in his particular case, we are, in my opinion, justified in giving him an approximate prognosis—bearing in mind, however, that nature at times confounds the logic of the most capable physician, and brings about results contrary to our expectations.

Proceeding then upon this theory, what means have we at our command by which we may with intelligence form an opinion as to whether the chances of the patient are favorable or unfavorable?

I shall endeavor to mention here the most important of the means—no one

of which when taken by itself possesses any significance whatsoever, but when considered in connection with every other one enables us, in my belief, to make an approximate prognosis which will hold good in a large percentage of cases.

I shall first consider the patient himself in his relation to the disease, and the bearing which his history, characteristics, and circumstances have upon the question of prognosis.

The history of the patient is of assistance in prognosis. A family history of long life is a valuable asset to the tuberculous person, the only danger connected with the same being that the physician is sometimes misled by the excellent history and neglects to make the proper examinations, simply attributing the various symptoms to malaria, cold, or the so-called la grippe.

The ultimate results in tuberculosis depend a great deal upon the constitution of the patient, and a record of the patient's previous health is of great help in affording a clue as to his power of resistance. Those who are debilitated from previous diseases such as typhoid, pneumonia, articular rheumatism, etc.,—especially when the debilitation is aggravated by digestive disturbances—are very seriously handicapped in their fight for recovery. On the other hand, those who were able to throw off the exanthematous and various other diseases in a comparatively short time without marked debilitating sequellæ will in all probability display good resistance in fighting tuberculosis.

It is also worth while to consider the habits of the patient regarding the use of alcohol and tobacco, the total abstainer having a much better chance

for recovery than the one who has been accustomed to their use.

The manifestations of tuberculosis after the age of sixty naturally argues unfavorable results, but such cases are rarely met with. Age, in my estimation, is of real significance only when the disease manifests itself before adolescence. Then the prognosis is generally grave, owing to the fact that, aside from the destruction and malnutrition which the disease usually produces, the metabolic processes at this period of life, which, when normal are constructive, in tuberculosis become destructive, and cause arrest of development.

When we exclude pregnancy, parturition and the menopause, tuberculosis in the female can, as a rule, be prognosticated more favorable than in the male—providing that the same care and treatment are instituted as early in the case of the former as in that of the latter. I make this proviso because of the fact that in general the diagnosis of tuberculosis is not made as early in the female as in the male, due often to the aversion of the woman to an examination of the chest, and also many times to the mistake on the part of the physician in diagnosing the case as some female disorder.

It is also true that if, after the diagnosis of tuberculosis has been made, a change of climate is advised by the physician, the man responds more readily to the advice than the woman. Yet in spite of these disadvantages, it has been proven by the statistics from various sanatoria that the percentage of cures in the female is 60 to that of 40 in the male. The reason for same lies, I believe, in the fact that the female patient at the sanatorium can adapt herself more easily to the quiet,

inactive life than the male, and is more obedient, living up better to the rules and regulations of the institution.

Then too, although it is more difficult to persuade the woman to leave home for a different climate, having once taken the step, she is apt to remain for a longer period of time than the man.

It so often happens that when the man improves slightly, he feels the necessity of immediately returning to work, and soon breaks down under the responsibilities and activity of business life.

This brings us naturally to the question of financial conditions. Riches do not necessarily constitute a contributing factor to the well being of the tubercular patient, for so often the person of great means has become so accustomed to high life with its injurious pleasures and excitements that it is almost second nature with him, and he is unwilling to break away from it to follow the prescribed life of routine and quiet. On the other hand a lack of sufficient means to obtain the advantages of good food, proper surroundings, discontinuation of work, etc., is infinitely more dangerous than excess of means and renders the chances of recovery very slight.

The great number of people in financial straits afflicted with tuberculosis present one of the saddest pictures the world can give, and one of the greatest problems which confronts society.

Means sufficient to eliminate financial worry from the mind of the patient and to permit him to obtain the best of living conditions and medical care in a favorable climate, is one of

the most helpful aids in effecting a cure.

The protracted course of tuberculosis and the various ups and downs which accompany it make quite a heavy demand upon the nervous system of the patient. The mental attitude must therefore be taken into account when considering the outcome of the case. The fretful, the fearful, the restless, and the despondent waste their vital forces and so have less resistance with which to combat the disease; whereas the calm, the hopeful and the cheerful conserve their vitality and stand a much better chance of recovery. The intelligence and will power of the individual play an important part in this respect.

When a patient comes to a physician and recounts a tale of wanderings—several weeks in one place, a few months in another, etc.,—the physician at once realizes that unless he can convince him of the folly of this roving habit, his efforts to aid him will be practically useless. A person of this nature is very frequently found to be familiar with the majority of the patent drugs purporting to cure diseases of the lungs, and addicted to their use.

I shall now leave the patient and consider briefly the disease itself. By a physical examination we are able to detect the amount of lung involvement as well as the portion and character of same. Very little of prognostic significance can be placed on the amount of lung involvement, for a diffused infiltrative tubercle deposit without much moisture or softening gives a more hopeful outlook than does a smaller area associated with advanced destruction of tissue.

The portion of the lung involved is, however, of considerable importance. When the lesion is at the apex it will more readily heal than when the base or the middle lobe is affected.

An apical lesion even with advanced destruction of tissue or cavity formation will under favorable surroundings heal in a shorter period of time than a superficial lesion at the base of the lung under the same conditions. This is probably due to the fact that the blood supply at this location is richer, and that the expansion of this portion of the lung is accomplished with greater ease. This area being nearer the larger bronchi also has a freer exit for the excretion of the toxins.

A careful examination of the sputum reveals considerable of prognostic value. The presence or absence of elastic fibers gives us the idea as to whether or not destruction of pulmonary tissue is present. The number of tuberculous bacilli is of little consequence, for rapidly softening foci excrete numerous bacilli, while the miliary form of tuberculosis, which is the most dangerous, throws off very few bacilli if any—usually none at all.

The diminution of the bacilli in the sputum can generally be regarded as a favorable sign unless contradicted by adverse symptoms. The various pathogenic bacteria so often associated with the tuberculous bacilli, when numerous usually render the prognosis unfavorable. Blood in the sputum or minute hemorrhages not sufficient to cause anemia, are detrimental chiefly because they produce a depression of spirits in the patient. When a hemorrhage occurs early in the disease it is a great blessing, as it acts as a signal

of danger to the often unsuspecting person, and arouses him to action before it is too late.

The presence of eosinophiles in the sputum is a favorable sign, providing the same is not due to a marked bronchitis or any other inflammatory condition of the respiratory tract.

Albuminuria signifies the presence of amyloid degeneration of the kidney, and if tubercle bacilli are found in association with it tubercular changes are evidently present, and the results are naturally unfavorable.

Indicanuria indicates autointoxication or intestinal indigestion and if it manifests itself in repeated examinations of the urine, is of serious import.

The Diazo reaction, if found repeatedly, according to Ehrlich signifies an early death.

The most important complications of pulmonary tuberculosis are catarrhal pneumonia, pleurisy, stomatitis, gastric disturbances, fistula, and secondary tuberculosis of other organs, viz: cerebral meningitis, tubercular enteritis, peritonitis, tubercular nephritis, and laryngitis. Each one of these is important enough to be discussed as a subject in itself, and I shall hardly attempt in this paper to give the bearing of each upon the question of prognosis. I wish, however, to note in passing the one complication which is of so frequent occurrence—manifesting itself in from 35 to 40 per cent of all pulmonary tuberculosis—viz: tubercular laryngitis. This was at one time considered of grave significance by almost all physicians, and even at the present some hold this opinion, but so far in my experience it has proven, when

treatment is instituted early and kept up persistently, to be absolutely curable.

I shall conclude by citing the history of a case which came under my observation, and which illustrates well the influence of the various factors mentioned in this paper upon prognosis.

December, 1911, Mrs. M. F., age 34, married for the past six months, present occupation housework, former occupation nurse in a general hospital for about eight years.

Family history.—To the best of her knowledge no one in the family ever suffered with tuberculosis. Father and mother, also grand parents paternal and maternal, have lived a long life, no alcoholic habits or any special diseases in the family.

Previous History.—Measles, whooping cough and mumps between the age of one and five, had been well until the age of eighteen when she suffered an attack of small pox, from which she recovered in about two weeks. Was in perfect health until about seven months ago when she first began to feel tired, had coughing spells—particularly in the morning. Soon afterwards followed loss of weight, expectoration, and pain in the throat. The disease, however, was not diagnosed until a slight hemorrhage occurred, which was about three months after she began to feel badly. She was then advised to leave Illinois and go to the southwest.

On arrival here the following was her condition: cough severe—more so in the morning, expectoration eight to nine ounces in twenty-four hours, temperature 101, 101½ (afternoon), throat sore—particularly on swallow-

ing liquids, hoarseness marked, slight dyspnea, strength fair, appetite good, digestion good, weight 142 lbs.

Physical examination disclosed the following: right apex anter. consolidation to the fourth interspace, bronchovesicular breathing, numerous moist rales, and a few dry rales; left apex anter. consolidation extending to the second interspace, a few dry rales, also moist rales—after coughing and deep breathing only; right apex post. marked dulness extending to the angle of the scapula and numerous moist rales.

Laryngoscopic examination disclosed slight infiltration of the inferior portion of the right true vocal cord, infiltration of the right intravascular band and ulceration of the posterior portion of the epiglottis on the right side.

Laboratory findings. — Sputum greenish yellow, elastic fibers present, tubercle bacilli positive 50-60 in a field, and numerous strepto. and staphylococci.

Urine.—Sp. Gr. 1012, reaction acid, no albumen or indican, and the Diazo reaction negative.

This case came under my observation in the early part of December, 1911, was treated at the sanatorium for about three months and for about five months private. In the latter part of July, 1912, the patient was pronounced an arrested case, according to the old nomenclature of the National Antituberculosis Society. The same month she left for California and has been living there ever since in good health. The last I heard from her was an announcement of the arrival of a son on the 26th of January, 1914.

TUBERCULIN.

DAVID C. TWICHELL, M. D.,
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(First Paper. Read before the Grant County Medical Society, April 24th, 1914.)

In a discussion on tuberculin, such as I have been invited to give before this Medical Society, I have no intention, nor have I the knowledge to give an exhaustive treatise on the subject, nor do I intend to go into the detail of the clinical use of tuberculin, nor into the matter of the selection of proper cases, both very important matters.

In any discussion on tuberculin it is only natural for me, who have had the privilege of studying for ten years under Dr. Trudeau, to go over again in more or less detail his experience in the matter. Dr. Trudeau has used tuberculin ever since it was first sent to America. He has never lost his faith in it as a helpful agent in combatting tuberculosis. He has seen the interest in the matter go through various and recurring waves of criticism and enthusiasm. He, with Dr. Baldwin, was the first to show Koch, I believe, that the Bacillen Emulsion as first manufactured might contain living tubercle bacilli. This led to a modification of the manufacture of this product which eliminated any such possibility.

With your permission I will make my paper on this subject informal and possibly too rudimentary. On the other hand, I can say in defense of such a paper that the use of tuberculin is a rather special subject and to my

mind needs a more or less long, actual experience in its handling to obtain the best results of its use. So the general practitioner in a community like ours who should use it on occasion is often very much in the dark in regard to its proper use.

These two papers on the subject I have decided to outline as follows. This first paper will be my impressions of Dr. Trudeau's experience, experimental and clinical, with tuberculin. The second paper will be my own experience, under Dr. Trudeau's guidance, and my own judgments in the matter.

Of all men that I have seen use tuberculin, Dr. Trudeau, to my mind, is the most cautious. He has told me that at one time he was considered criminal in treating patients with tuberculin, and I know individuals at present working with him who now criticise him for being too cautious in its use.

To digress a moment from the subject in hand, I would like to recall to your mind Dr. Trudeau's first experiment in tuberculosis. The experiment that made him known to the medical profession of the world. As you undoubtedly remember, when the tubercle bacillus as the aetiological factor was first discovered the idea was combat-
ted. Dr. Trudeau conceived the idea of making a demonstration of the truth of the assertion, and at the same time to demonstrate, if possible, that outdoor life would tend to help an organism combat tuberculosis. The experiment was with rabbits. He inoculated 12 rabbits with tubercle bacilli. Six healthy control rabbits he also included in the experiment. Six inoculated rabbits were put in his cellar, where it was

damp and sunless and were lightly fed. Six healthy rabbits were placed in a neighbor's cellar under the same conditions. Six inoculated rabbits were placed on a very small island in Saranac Lake, where they had plenty of feed and could be easily captured. At the end of several weeks all the rabbits in his cellar were dying of tuberculosis. The six in his neighbor's cellar were thin, but showed no sign of tuberculosis. Of the six on the island, some had a distinct tuberculosis, but the others showed only slight evidences of infection, but the condition of all the animals on the island was remarkably superior to those in his cellar. This experiment has no bearing on tuberculin, as you see, but I merely mention it as an illustration of the simplicity of Dr. Trudeau's experiments and his desire in all his experimental work to obtain, if possible, a practical addition to our knowledge and to give hints as to clinical aid for the tuberculous human.

Dr. Trudeau and Dr. Baldwin found that it was possible to cause a small, slowly-progressing tubercle in the eye of a rabbit by incising the cornea and introducing a small measured quantity of a slightly virulent culture of tubercle bacilli. Such a tubercle is easily watched with the naked eye through its development. Dr. Trudeau found that in the study of such a tubercle he could see the focal effects of an injection of old tuberculin introduced subcutaneously in any part of the animal's body. The result of such an injection would be in a few hours the marked inflammation of the eye, with the engorgement of all the local blood vessels. His study was directed toward the better knowledge of tuberculin reaction, but

the fact became apparent on repeated injections in the same animal that the tubercle tended to cease to develop and become partially healed at least, while in the control animal not under treatment the tubercle gradually progressed.

Dr. Trudeau says that the most interesting lead he ever got was his work, some years ago now, in the attempt to immunize guinea pigs with attenuated living cultures. The cultures used were the descendants in one case of the original culture, used by Koch in his first experiment. It is called K_1 and was obtained by Dr. Baldwin from Koch. This culture from its long life on artificial media is very much attenuated. It causes when injected in guinea pigs not even an abscess formation, unless the dose is large.

The culture R_1 was also used. This culture was obtained by Dr. Trudeau by inoculating a rabbit with human sputum and reclaiming the bacillus from the spleen, I think. It is probably the oldest culture in America, and should be known as T_1 , but with his usual modesty, Dr. Trudeau named it R_1 , after the rabbit.

This culture has been growing for some years now continuously on artificial media and is of quite low virulence, yet more virulent than K_1 . In proper dosage it will set up a glandular tuberculosis and slowly advance in the organism.

Dr. Trudeau's experiment was the attempt to immunize healthy guinea pigs by a previous dose of K_1 or R_1 .

An interval was allowed to elapse—two to three weeks, I believe—before an injection of virulent tubercle bacilli of human origin was made into all the animals, and also into control healthy

animals. The immediate result was a surprise to Dr. Trudeau. The animals vaccinated with R_1 became in a short time, a few hours I believe, apparently very ill, and he and Dr. Baldwin feared that they would die. The animals vaccinated with K_1 and the unvaccinated animals showed no immediate effects of the inoculation with virulent bacilli. Shortly after the initial shock, the R_1 animals began to improve in condition and when all the animals were killed some weeks later were found to have the least evidence of tuberculosis of all the groups. The animals vaccinated with K_1 and the control animals had lesions very similar. Apparently the K_1 bacillus was so attenuated that it did not set up any response in the animals.

The partial immunity conferred by the R_1 is now more or less understood, but at that time was a great puzzle to Dr. Trudeau. Yet since that time he has often said that the successful vaccinating agent to be discovered must, most probably, be a *living* vaccine.

Later another experiment was undertaken by Dr. Trudeau, to demonstrate, if possible, the comparative curative effect of the different tuberculins. Guinea pigs were inoculated with a minimal dose of virulent human tubercle bacilli. The attempt was made to give such a small dose that the animals would develop a slowly progressing disease, resembling human chronic tuberculosis; and not be overwhelmed by the size of the dose of virulent tubercle bacilli. These animals were treated regularly with tuberculin. One set received increasing doses of bacillus filtrate, and another increasing doses of bacillen emulsion. After an inter-

val of treatment, pigs were killed from the different groups, along with control animals, and this was repeated at stated intervals until all were killed. *There was no definite evidence that the tuberculin treated pigs were helped in their struggle to control the virulent inoculation.* All the animals were about equally tuberculous. This may have been in part due to the fact that even the minimal dose of virulent tubercle bacilli overwhelmed these small animals.

Ever since founding the Adirondack Cottage Sanitarium in 1884, Dr. Trudeau has used tuberculin in that institution, in diagnosis and treatment. He has always contended that by its use and the knowledge so gained alone was the road to advance in development of specific treatment of tuberculosis to be found.

Old tuberculin was used at the sanitarium for diagnosis and treatment at first. Later the other products as they were produced, although old tuberculin has alone been used in diagnosis. Bacillen emulsion was given a thorough trial and mixtures of this emulsion and some of the other products. I believe I am right in saying that at Saranac Lake there has been less and less use of bacillen emulsion in the past few years, due in part to the liability to very unexpected violent reactions in the course of treatment with this kind of tuberculin. In the past few years there has also been a decreasing use of tuberculin as a diagnostic agent.

In latter years Dr. Trudeau has advised, and mostly used, bacillus filtrate.

Hand in hand with his very cautious and conservative use of tuberculin, Dr. Trudeau is all enthusiasm over a case

undergoing tuberculin treatment, and ever hoping and expecting to see it turn the scale in favor of the patient in the long struggle for health.

(Second Paper. Read before the Grant County Medical Society, May 29th, 1914.)

In any discussion on tuberculin except along the most general lines, it is, in my judgment, very important to specify the particular kind of tuberculin under discussion. Of course, all the various products that go under the general name of tuberculin have certain characteristics in common, but each product, due to the difference in manufacture, has certain characteristics peculiar to itself.

I will take the liberty of describing certain of the commonly used tuberculins.

Koch's Old Tuberculin, so-called, was a glycerine broth culture of the tubercle bacillus. He took pure cultures of tubercle bacilli which had grown four to six weeks on 5% glycerine broth, filtered and concentrated the filtrate by boiling to 1-10 of its volume, thus obtaining in a 50% glycerine medium the soluble bodies secreted by the tubercle bacilli. In this tuberculin the substances from the tubercle bacillus are undoubtedly reduced or altered by the action of boiling.

The T. R. Tuberculin of Koch is produced by taking highly virulent cultures of tubercle bacilli, drying them in vacuo and triturating them in a mortar. The resulting powder is treated with sterile distilled water and centrifugalized. The supernatant clear fluid is then removed and to this Koch gave the name of Oberes Tuberkulin. The

solid residue is then again dried and the same process of extraction repeated several times, the fluid used each time being preserved and the whole finally mixed together. This mixture constituted the residual tuberculin T. R.

This tuberculin, it is seen, differs from the old tuberculin in containing more or less of the solid substance of the tubercle bacilli used in its manufacture.

The Tuberculin B. E. or Bacillary Emulsion introduced later by Koch is made by taking highly virulent cultures of tubercle bacilli, drying them in vacuo and triturating them in a mortar of special construction, so that the bacilli may be ground continuously for several days. The pulverized bacilli are then suspended in one part to 100 of distilled water with equal parts of glycerine.

A matter of practical importance is to be noted in regard to this product. It is a suspension and so should be thoroughly shaken before use to avoid the possibility of sedimentation leading to improper dosage.

B. F. Tuberculin or Deny's "Bacillus Filtrate." is made by taking pure cultures of tubercle bacilli which have grown from four to six weeks on 5% glycerine broth and filtering the whole through a Berkfeld filter. The filtrate which is Deny's tuberculin is not boiled. This tuberculin then contains, besides toxins secreted by the living bacilli, only those proteins from the dead bacteria which go into solution in the culture fluid, while the insoluble proteins which remain in the bacterial bodies do not pass into the filtrate.

It is to be noted that this tuberculin contains substances from the tubercle bacillus more or less unchanged, at

least not reduced or altered by boiling.

Of interest lately has been the question of the possible value of the Friedmann living turtle bacillus vaccine. Some few striking cases of improvement, especially in gland and joint cases, following injections of the turtle bacillus are now being reported in Germany.

A committee of the Association of Sanatorium Physicians of Germany, Austria and Switzerland has issued the following statement:

"We were of the unanimous opinion that the cases shown by Friedmann had been clinically very badly observed, and as a whole could not at all be considered as successes. We were astonished that no carefully recorded temperature and weight curves were shown. The x-ray plates which were shown to us as evidence of cures did not actually prove anything whatsoever. We will admit that *some cases indeed made an impression upon us*, but here we must also remember that such cases occur without any treatment or with any kind of treatment, and that the number of them was altogether too small to permit of a favorable judgment of the value of the remedy."

Lydia Rabinowitsch, in Koch's laboratory, has lately found "that of guinea pigs injected with acid-proof bacilli from Friedmann's vaccine, some developed small foci with bacilli in them and that one presented the picture characteristic of tuberculosis produced by the inoculation of feebly virulent tubercle bacilli of the mammalian type." In a large proportion of different samples Babinowitsch found streptococci which were pathogenic for guinea pigs.

A guinea pig injected by me on April 24th with a large quantity of

Friedmann's living turtle bacilli, when killed, May 18th (3½ weeks), showed no evidence of disease of any kind.

Now as to the observed effects of tuberculin on the healthy human and on the tuberculous human. Robert Koch took himself, I believe, several hundred milligrams of old tuberculin subcutaneously without any marked resulting symptoms. It is known that very young healthy infants can take as much as 1,000 milligrams of old tuberculin subcutaneously without observed effects.

In the case of the tuberculous individual two facts are known: (1) that an appropriate dose can cause a so-called "reaction." This reaction may be both "focal," causing an apparent acute inflammatory disturbance at the focus of disease and "general," causing a constitutional disturbance with fever, malaise, etc. (2) In the *second place* by a very gradual increase in dosage from a minimal dose a tolerance can be established in a tuberculous individual. We often see such cases take 1,000 milligrams without any reaction at all. Dairy men know this fact for they have been known to prepare their herds for the state tuberculin test by giving their cattle several increasing doses of tuberculin so that they will fail to react and so escape being condemned. Victor Vaughan says in this connection:

"Many investigators have failed to sensitize animals with tuberculin, while most have succeeded with dead bacilli and with aqueous extracts. This is not surprising; indeed, it is what should have been expected. Tuberculin consists of digested, denatured proteins of relatively simple composition. It is well known that peptones and polypep-

tids do not sensitize. The protein poison, when detached from other groups in the protein molecule, sensitizes neither to itself nor to the unbroken protein. The fact that tuberculin does not sensitize, or does so imperfectly, *raises a serious question as to its employment as a therapeutic agent.* It is undoubtedly an excellent diagnostic agent because its relatively simple structure favors its prompt cleavage when injected into an animal already sensitized by the disease. But if it is not a sensitizer its *therapeutic good effect, if it has any such effect, must be confined to the possible establishment of a tolerance to the tuberculopoisson.* Sensitization to tuberculoprotein can be induced by bacillary emulsions, with watery extracts, and with the non-poisonous residue. If the sensitization secured by the last-mentioned agents is as good as that produced by the others, it has the advantage of not containing any poison. On the other hand, if the therapeutic effect desired consists in the development of a *tolerance* to the poison, tuberculin must be preferred unless we should use the more completely isolated poison." (Italics author's.)

As to tuberculin in diagnosis I would merely state that the skin reactions (von Pirquet test, Calmette eye test, Moro tuberculin ointment test, and intradermal test) should, in my judgment, be classed together as tests for infant tuberculosis as von Pirquet distinctly stated and only claims for his test. The Calmette eye test should only be mentioned to be condemned, in my judgment, on account of the observed danger to the eye. The Moro ointment test has certainly the distinct *disadvantage* of no exact measure of

dosage. The intradermal test has advantages in that a measured quantity, usually .01 mgms. to .02 mgms. can be placed by the hypodermic needle directly in the horny layer of the skin.

Dr. Trudeau has always used the subcutaneous test with Koch's Old Tuberculin, with doses from 5 mgms. to 10 mgms., in his practice more or less for many years; less, certainly, in the last few years. I believe the use of this test—and it is the only test for adults—has a very limited field. That is in differential diagnosis of a puzzling case. *And there a negative result is the most important finding.* All results must be read in the light of the clinical history and the signs and symptoms in the particular case. I also believe that a positive reaction is only of importance if the reaction is *sharp and distinctive* with fever from 101 to 103 and evidences of focal and constitutional reaction. It should be borne in mind that the tuberculin test is only one of the aids to diagnosis and not an absolutely specific test.

A discussion of tuberculin in treatment often is merely a discussion of the different empirical methods of giving tuberculin. In such a discussion of methods, we would consider, first, induced focal reactions as was the original method of Koch; second, (that is chronologically), the method of very gradual increase of dosage with the avoidance, if possible, of all clinical reactions as advocated by Deny, Trudeau and Sir Almoth Wright; third, as is often done at the present time by some practitioners a method of gradual increase of dosage in the face of slight or marked reactions.

To my mind the tuberculin treatment of surgical and pulmonary tuberculosis

should properly be discussed separately. The remarks in this paper apply almost entirely to pulmonary tuberculosis with which subject I am more familiar. But at this point I will report a case of surgical tuberculosis treated with tuberculin for the interest and information bearing on tuberculin as illustrated by it.

Mr. C. C. Remington, a lawyer. Came to Saranac Lake three years ago. He gave the following history. Three years before that date he had noticed a swelling in his right groin. This swelling grew large and became tender. His physician after a time noticed that the swelling, apparently an inguinal gland, was pointing. The swelling was incised and drained but no attempt was made to remove the gland or glands involved. The wound refused to heal, and as time went on, it developed into a large running ulcer with several pockets. The discharge was more or less foul, and this, with the necessary dressings, proved a great annoyance to the patient. Simple washings with antiseptic solutions for a long period gave no relief. The ulcer was treated at different times by the application of X-rays and Finsen rays, with no relief. A staphylococcus vaccine and a colon bacillus vaccine made from the discharging pus gave no benefit when injected in treatment. Just before coming to Saranac Lake the patient was given a cautious course of tuberculin treatment with very small doses, after a diagnosis had been established by finding tubercle bacilli in a bit of tissue cut from the side of the ulcer. This course of tuberculin with very small doses produced no effect on the ulcer.

On examination the patient seemed a particularly robust man of 35 years. Apparently all organs normal and he gave no symptoms at all, except those of the discharging ulcer. It was decided to try more or less heroic doses of tuberculin so as to produce focal reactions if possible in the ulcer with stimulation to healing. Such heroic doses seemed justifiable and safe as he showed no evidence of pulmonary or other tuberculosis outside the ulcer. For two months he was treated twice a week at first, later with longer intervals, by injections of T. R. tuberculin, beginning with .001 mgm. and increasing rapidly to the final dose of 2 mgms., *i. e.*, of the actual solid substance of the bacillus, which by fluid measure would be called 1,000 mgms. The doses were given in four locations about the ulcer, two in the abdominal wall and two in the upper thigh. The day following the dose Bier's suction cups were applied over the ulcer with the idea of inducing the lymph flow from the points of injection toward and into the ulcer.

Soon after the treatment was instituted the sites of injection at each treatment showed large indurated lumps which were tender and would persist for two or three days. For the first two weeks the ulcer appeared under this treatment much more active in discharge and was much more painful to the patient; in fact, he assured me that it was certainly getting worse under the treatment. An explanation that the attempt was being made to stimulate the ulcer satisfied him to persist in the treatment. Several new pockets broke open and discharged as the treatment continued. The brownish tissue about the ulcerated area began

to soften and the skin to appear more normal. The discharge became less foul and the patient began to report that he could walk and swing his leg with less discomfort. The last two doses of 800 and 1,000 mgms. fluid measure gave sharp focal and constitutional reactions with fever to 102, malaise, etc. There were never any signs or symptoms of pulmonary disease with the reactions. In the two or three weeks following the final doses the ulcerative area promptly healed, leaving clean, soft scars, which up to the present time, 3 years, have remained in a perfectly condition, with no tendency to a recurrence of the condition.

My own judgment in the matter of the tuberculin treatment of pulmonary cases is very largely governed by my experience under Dr. Trudeau. In later years he has advised and mostly used in such cases Bacillus Filtrate. He is very cautious in advising the use of tuberculin in a given case and very cautious in its administration. I have never known him to advise this treatment in a case that was progressing satisfactorily under hygienic and climatic treatment. In cases that have apparently come to a standstill under these conditions—with the balance struck between the invaded and invading organism—he advises a cautious use of tuberculin, starting with an exceedingly small dose and increasing very slowly. Any evidence of intolerance as shown, *not necessarily* by fever or marked symptoms, but by increased cough and expectoration, pleuritic pains, lassitude, or loss of weight, he feels should not be disregarded, but

should lead the physician to lengthen the interval between doses, repeat the same dose, reduce the dose or discontinue the treatment altogether, if the symptoms persist.

I consider tuberculin a very powerful agent even in the very small doses we now use, *for good* in carefully selected cases, and *maybe for distinct harm* if blindly used.

It has occurred to me that the following method might give satisfactory results in treatment. Two facts would seem to be established in regard to tuberculin: *first*, that it is possible to create a *tolerance* to tuberculin by gradually increasing dosage: *second*, that it is possible to cause a *focal reaction* in the tuberculous organism by the proper dose. Could we not by starting with a very small dosage and gradually increasing create a certain amount of tolerance and then by a rapid increase produce a focal reaction and limit our treatment to this procedure? In methods now in use this is often practically done because on the first sharp reaction the treatment is discontinued due not to design but to the caution of the physician or to the disinclination of the patient to continue with the treatment. Such a method would take into account the observed fact that patients are often improved in general condition following a diagnostic reaction and that many patients show apparently the most marked improvement in the period *directly following* a course of tuberculin. Also such a method would follow the teachings and beneficial results as shown by Koch in his early method of producing focal reactions.

Abstracts

American Proctologic Society.

The 16th annual meeting of the American Proctologic Society was held at Atlantic City, N. J., June 22 and 23, 1914. Officers were elected for the ensuing year as follows: President, Louis J. Krause, M. D., Cincinnati, Ohio; Vice-president, Collier F. Martin, M. D., Philadelphia, Pa.; Secretary-treasurer, Alfred J. Zobel, M. D., San Francisco, Calif.; Executive Council, Jas. A. MacMillan, M. D., Detroit, Mich.; Chairman; Louis J. Krouse, M. D., Cincinnati, Ohio; Lewis H. Adler, Jr., M. D., Philadelphia, Pa.; Alfred J. Zobel, M. D., San Francisco, Calif. The place of meeting for 1915 will be San Francisco, Calif. Exact date and headquarters will be announced later.

The following were elected Associate Fellows of the Society: Dr. Wm. H. Axtell, Exchange Block, Bellingham, Wash.; Dr. Rolla Camden, 915 Avenue of the Presidents, Washington, D. C.; Dr. Deseum C. McKenney, 1250 Main St., Buffalo, N. Y.

The following are abstracts of some of the papers read:

Coccygodynia: A New Method of Treatment by Injections of Alcohol. By Frank C. Yeomans, A. B., M. D., of New York City, N. Y.

The diagnosis is established by a thorough examination, both general and local. Local examination is made by inserting the index finger into the rectum and palpating the coccyx between it and the thumb outside. The soft parts intervening between the coccyx and anus are now compressed and the point of maximum tenderness is thus located, usually just beyond the tip of the coccyx. Proctoscopy rules out rectitis.

The prognosis hitherto has been better in the traumatic cases than in those of frank neuralgia or neuritis. The writer confidently predicts that the treatment proposed will render the latter equally amenable to treatment.

The writer proposes a treatment based on the suggestion of Schlosser in 1907, of injecting 70 to 80 per cent alcohol in sensory nerves, thereby causing their degeneration as practised with marked success in trigeminal neuralgia.

The technique is simple and can be carried out in the office under strict aseptic precautions. The patient with empty bowel is placed on a table in the Sims' position and the skin about the coccyx painted with tincture of iodine. A 2 cc. Luer or similar needle is filled with 80 per cent alcohol and armed with a two inch needle. The right index finger is now inserted into the rectum and the point of maximum tenderness is determined by counter pressure with the thumb outside. Maintaining the finger in the rectum to guard against puncture and as a guide, the needle is introduced through the midline directly to the painful spot, and 10 to 20 minims of solution are injected slowly.

The needle is withdrawn and its puncture sealed with collodion. The pain from the injection lasts a few minutes and is followed by a dull ache which may last a day or two. From three to five injections are usually required at intervals of about one week.

The writer reports seven cases, all women, treated from two months to four years ago. They required three, four or five injections each at intervals of about one week. Relief was prompt and complete and all the patients have remained well.

Further Observations on Pruritus Ani: Its Probable Etiological Factor; Results of Treatment. (A fourth report, based on results of original research.) By Dwight H. Murray, M. D., Syracuse, New York.

In this report on the fourth year's work of original research on pruritus ani, the author finds there is not much more to give to the profession beyond the confirmation of the work of previous years. He has yet no reason to doubt his claims for the infectious theory of pruritus ani.

Twenty new cases have been examined during the past year. In all but two of these streptococcus fecalis has been demonstrated.

It has been found that occasionally the bacterial growth seems to be so lacking in strength that it is difficult to obtain an autogenous vaccine. It is not known why this is so unless it is owing to the very low grade inflammation produced by germs not so active as those found in many other infections.

During this year two cases were treated by other physicians who tried to follow his technique, but in neither case was improvement manifest notwithstanding that streptococci were found present by the author's bacteriologist and although the same quality of vaccines were used. With the consent of their physician the author took up the treatment. Improvement was marked. The only point of difference in the technique that he could discover was that the others injected the vaccine deep into the muscle instead of directly into the skin or immediately beneath it.

During the past year the author has had additional proof that the itching does not extend appreciably above the white line of Hilton. He has also had continued confirmation of his previous statement that

the moisture found upon the parts is not a discharge from the rectum.

This past year's work again shows that other rectal diseases are not present regularly with pruritus ani, and the belief is confirmed that they are coincidental instead of etiological.

No unfavorable sequelae arose from the vaccine injections. There is now no hesitation in running the dose up to two billion or more dead bacteria. One injection resulted in the formation of a jelly-like material in the tissue but this was absorbed. Some time ago a similar swelling was opened and found to be sterile, and no trouble has resulted.

Treatment of Amebic Dysentery by Emetine Hydrochloride. By Alfred J. Zobel, M. D., of San Francisco, Calif.

The writer gives a brief culling from the literature on the emetine treatment of amebic dysentery, and also a few words relative to the drug itself.

He states that in emetine hydrochloride we have a reliable, non-toxic drug possessing a definite specific action; which may be administered hypodermically, and yet which will permit of a sufficient dose being given without causing any depression, nausea, vomiting, or local reaction.

He reports two interesting cases in which the disease was present in one individual for ten, and in the other for fourteen years. Under the influence of emetine, within two or three days amebae, blood, mucus, froth, and foul odor disappeared from the dejections and their number greatly decreased; the racking tenesmus, bearing down feeling in the rectum, the colic, and the abdominal tension, discomfort, and gurgling absolutely ceased. Proctoscopic examinations revealed the favorable influence of the drug upon the

amebic ulcerations. No amebicidal irrigations were employed.

He further reports other cases seen by him in consultation which demonstrate most forcibly the necessity for a proctoscopic examination of the bowel and a microscopic examination of the feces in every instance where a diarrhoea lasts longer than a week, even though the patient has never lived in nor visited a locality where the disease is known to exist.

He advises that emetine should be given for at least three or four months at intervals before the patient should be considered free from the possibility of a recurrence, even though he is clinically cured and the amebae cannot be longer found in the stools.

Amebic Dysentery and its Treatment.
By Dr. Wm. M. Beach, of Pittsburgh, Pa.

The writer of this paper states that:—

(1) Amebic dysentery in the early stages may be cured with emetine. (2) In cases somewhat advanced emetine is efficacious and at least clinically curative. (3) The use of the duodenal tube, through which to introduce solutions of emetine to any portion of the intestinal tract, should receive trial and consideration. (4) For rapid cure, and control, cecostomy or appendicostomy is the best measure in advanced and chronic cases. (5) Direct irrigation from above is superior to rectal injections, in that it is less painful and more thorough. (6) The appendix should be removed in most cases of amebic dysentery. (7) The so-called specific emetine can be easily applied in weak solutions.

Hemorrhoids; Their Treatment. By Dr. J. Rawson Pennington, of Chicago, Ill.

Dr. Pennington states that clinically hemorrhoids should be classified: (1) ac-

cording to their location; (2) according to their structure.

According to their structure they are divided into, (a) those containing fluid blood, (b) those containing clotted blood, (c) those containing both fluid and clotted blood, and (d) those consisting of "skin tabs" or folds of skin.

Most hemorrhoidal cases can be operated on under some form of local anesthesia. He operates on 90% of his cases by blocking the field of operation. The cocaine is usually employed in the strength of from $\frac{1}{4}$ to $\frac{1}{2}$ of 1%. The quinine and urea in from $\frac{1}{4}$ of 1% to 1% solution. Sometimes he combines the solutions, the cocaine being used for its immediate effect and the quinine and urea for prolonging the anesthesia.

During the last 20 years he has given a fair trial to a number of methods advocated which promised a reasonably good result, including the ligature, the clamp and cautery, Whitehead, injection, suturing and other methods which unite tissue in mass, and has come very definitely to the conclusion that by far the best way of treating this condition is by the excision or enucleation method.

The operative procedure should have for its object the removal of the cause of the tumefaction. The treatment for each type of hemorrhoid should be practically the same. This should consist in removing an ellipse from the tumor-like formation and in the case of the thrombotic pile turning out the clot, and in that of the internal variety the varicosity and allowing the blood to escape, and in the fleshy pile of dissecting out the excess of tissue.

Local Treatment of Anal Fissure. By Jas. A. Duncan, M. D., of Toledo, Ohio.

The writer describes a treatment for

anal fissure which he has employed successfully for the past thirteen years. The fissure is brought into view by separating the folds, and the surface is lightly curetted, then thoroughly dried, and a drop of collodion applied. This takes only a moment or so. A recent ulceration requires but a single application. A sharp stinging pain lasting for only a few minutes is caused, and then the patient is left perfectly comfortable.

New and Nonofficial Remedies.

Since publication of New and Nonofficial Remedies, 1914, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies."

Arleo-Urease.—A standardized preparation of the ureolytic enzyme obtained from the soy bean. It decomposes urea into ammonia and carbon dioxid and is used in the estimation of urea in urine, blood and other body fluids. The ferment is added to a measured amount of urine and, after a time, the amount of ammonia formed is determined. Arlington Chemical Co., Yonkers, N. Y. (Jour. A. M. A., July 11, 1914, p. 165).

Urease-Dunning.—A highly potent and standardized preparation of the ureolytic enzyme obtained from the soy bean. It decomposes urea into ammonia and carbon dioxid. It is used for the determination of urea in urine, the amount of ammonium carbonate, formed from the ammonia and carbon dioxid produced is determined by titration with volumetric acid. Urease-Dunning is supplied only in the form of Urease-Dunning Tablets, containing 0.025 Gm. Hynson, Westcott and Co., Baltimore, Md. (Jour. A. M. A., July 11, 1914, p. 165.)

Electrargol for Injection.—Ampules containing 10 cc. electrargol in the non-isotonized condition. Comar and Co., Paris, France. (Jour. A. M. A., July 11, 1914, p. 165.)

Styptic Applicators, Alum 75 per Cent.—Sticks tipped with a mixture of alum 75 per cent and potassium nitrate 25 per cent. Admitted to the Appendix to New and Nonofficial Remedies. Antiseptic Supply Company, New York. (Jour. A. M. A., July 11, 1914, p. 165.)

Propaganda for Reform.

Robinol.—Robinol is a glycerophosphate mixture exploited by John Wyeth and Brother on the discarded theory that certain diseases are due to a loss of phosphorus from the body and that this phosphorus deficiency is best remedied by administration of glycerophosphates. There is no evidence that glycerophosphates when administered act differently than do inorganic phosphorus compounds. At all events, if phosphorus deficiency really occurs, it would be more rational to supply the needed phosphorus in the form of foods rich in phosphorus such as milk and eggs. (Jour. A. M. A., July 4, 1914, p. 49.)

Sevetol.—There was a time when physiologists thought that fats were absorbed into the blood in the form of a fine emulsion. It is now known that fat enters the blood after having been split into glycerol and fatty acid, the latter being, to a large extent, combined with alkalies in the form of soaps. Making use of the discarded theory Sevetol, put out by John Wyeth and Brother, is presented to the profession with the claim that it is a very fine emulsion of fat and because of this is readily absorbed. While Wyeth and Brother would have physicians believe that Sevetol is readily absorbed and digested, it is evident that the amount of Sevetol which can

be taken is limited not only by the power of assimilation but also by the power of digestion. (Jour. A. M. A., July 4, 1914, p. 49.)

Tooth Detergents.—While many tooth preparations are alkaline from the soap which they contain, it is probable that weakly acid preparations are to be preferred. As the antiseptics in tooth powders and washes do not remain in the oral cavity for any length of time, they cannot exert any beneficial action. Antiseptics may even be harmful in that their periodical application may render the organisms which infect the mouth more hardy and vigorous. (Jour. A. M. A., July 4, 1914, p. 50.)

Dr. Jiroch Company, A Fraudulent Concern.—The federal authorities have declared the Dr. Jiroch Company, 533 S. Wabash Ave., Chicago, fraudulent and denied it the use of the mails. This medical mail-order concern sent out a treatment which appears to have been the same no matter what the symptoms reported by the victim. Examination of the four kinds of tablets sent out, in the A. M. A. Chemical Laboratory, showed these to contain ordinary tonic and laxative drugs. (Jour. A. M. A., July 11, 1914, p. 179.)

Lithium Salts in Uric Acid Diathesis.—There is no reliable clinical evidence that lithium salts increase the excretion of uric acid by the kidneys, except as they exert a diuretic action. Experimental work has failed to show that lithium salts or the alkalies cause the absorption of deposited urates, gouty tophi, etc. The popular belief as to the action of lithia is founded on a misinterpretation of chemical facts. There is no reason why lithium salts should be expected to favor the solution of uric acid or urates in the tissues,

the blood-serum or the urine. (Jour. A. M. A., July 11, 1914, p. 184.)

Wine of Cardui.—While the Chattanooga Medicine Company asserts that in the manufacture of Wine of Cardui no more alcohol is used than is necessary to preserve it, experiments indicate that the preparation contains only water-soluble constituents and that a non-alcoholic preparation might easily be prepared. Also, despite the owner's assertion that Wine of Cardui cannot be used as a tipple, large doses were taken experimentally with no observable effects other than those of alcohol; further, letters from physicians assert that the preparation is used habitually, evidently for its alcohol effects—probably unconsciously. The exploitation of Wine of Cardui is vicious and the public should be apprised of the facts. (Jour. A. M. A., July 18, 1914, p. 258.)

Strychnin and Caffein in Cardiovascular Disturbances.—Aided by a grant from the Council on Pharmacy and Chemistry, Dr. L. H. Newburgh has made a painstaking study of the action of strychnin and caffeine on cardiovascular disturbances. He concludes that, since the blood-pressure is not low either in persons showing grave symptoms of pneumonia or of those dying from that disease, and since it has been proved that the vasoconstrictor arcs are normal in animals after death from pneumonia, it is logical to conclude that the vasoconstrictor mechanism is not impaired in pneumonia. Strychnin does not improve or augment the work of the heart in persons suffering from broken cardiac compensation. It could not be shown that either strychnin or caffeine stimulated the cardiovascular apparatus in any of the conditions studied. (Jour. A. M. A., July 25, 1914, p. 311.)

Sodium Fluoride.—While the poisonous character of fluorides is recognized, the

use of sodium fluoride as a food preservative is still considered. As a result of experiments, F. Schwyzer concludes that fluorine preparations are poisonous even when administered in very small doses. (Jour. A. M. A., July 25, 1914, p. 323.)

Vaccine and Serum in Hay-Fever.—A serum for the treatment of hay-fever is described in *New and Nonofficial Remedies*. Theoretically there can be no vaccine treatment of this disease for the reason that it is produced, not by bacteria, but by the pollen of various plants. The use of vaccines derived from the micro-organisms found in the nasal secretion are still in the experimental stage. (Jour. A. M. A., July 25, 1914, p. 340.)

Book Reviews

MODERN SURGERY: GENERAL AND OPERATIVE. By J. Chalmers DaCosta, M. D., Samuel D. Gross Professor of Surgery, Jefferson Medical College, Philadelphia, Pa. Seventh Edition, Revised. Enlarged and Reset. Octavo of 1515 pages, with 1085 illustrations, some of them in colors. Philadelphia and London. W. B. Saunders Company, 1914. Cloth, \$6.00 net; Half Morocco, \$7.50 net.

The seventh edition of DaCosta's Surgery comes to us as a revised, enlarged and entirely reset volume containing many additions over the earlier volumes.

DaCosta's *Surgery* has long been a popular work and this new volume will add much to its popularity with both student and practitioner.

We desire to warmly commend the preface to this book as it is a marked departure from the usual stereotyped form and shows a sincerity on the part of the author to really present a book of value.

The printing and binding are in Saunders' usual satisfactory style.

There has recently been issued from the Smithsonian Institute a volume of the Smithsonian Miscellaneous Collection series under the title *Atmospheric Air in Relation to Tuberculosis*. This is the successful essay in the competition held by the institution for the best essay on this subject presented at the time of the International Congress on Tuberculosis held in Washington in 1908 and is by Doctor Guy Hinsdale of Hot Springs, Virginia. The published essay has been revised so as to include advances made in the study of the subject down to the date of the publication.

The essay is a most exhaustive treatise on the subject and shows a most painstaking search of the literature and contains much valuable information.

Those of our readers interested in the volume may obtain information as to price from the Smithsonian Institute, Washington, D. C.

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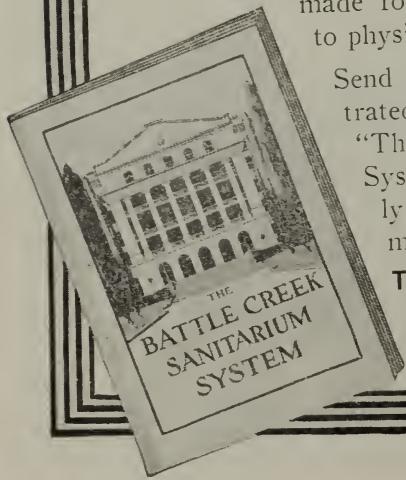
THE Battle Creek Sanitarium is an institution for the treatment of chronic invalids—incorporated 1867—re-incorporated 1898—erected and equipped at a cost of \$2,000,000—non-profit paying—exempt from taxation under the laws of Michigan—employs 300 nurses and trained attendants and 600 other employees.

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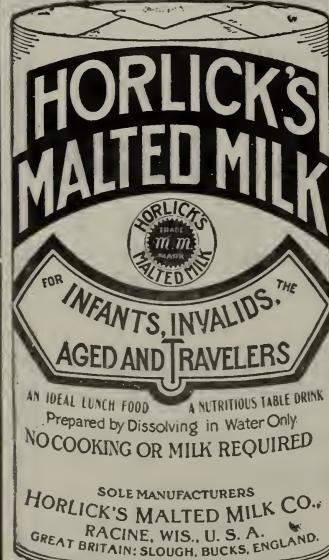
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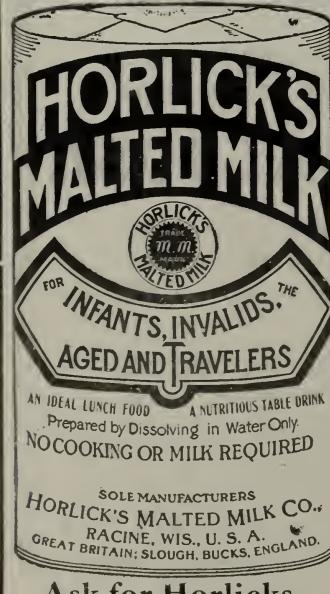
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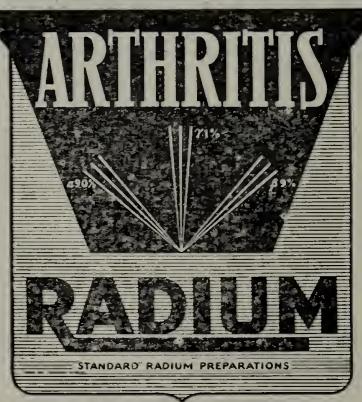
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SEPTEMBER, 1914

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The amusement program includes many pleasant social features, six days of first class horse racing; with all the horses on the fast Santa Fe circuit entered; automobile and motorcycle distance and track racing; an aviation contest; several amusement features of unusual merit; the usual carnival company; the usual noise and rush and bustle of fair time, with what promises

to be the biggest attendance in recent years. President Ely of the state fair commission has dubbed it "The state's biggest fair in the state's biggest year."

Of special interest to the medical profession will be the "better babies" contest in which some 300 children under 3 years of age are already entered and to whom will be awarded something over \$1,500 worth of cash and other prizes, awards to be made on the basis of physical perfection, and to be determined by a commission chosen from the attending members of the *New Mexico Medical Society*. This better babies contest is the first serious public effort of the Albuquerque Women's club, and the federated women's clubs of the state to secure intelligent co-operative effort for more competent care of children in New Mexico.

There are plenty of comfortable rooms in Albuquerque hotels which may be had by making reservations now. Thomas F. Binkert, Secretary to the state fair commission, will gladly attend to all early reservations.

The New Mexico Medical Journal has from time to time called the attention of its readers, particularly those who are members of the New Mexico Medical Society, to the necessity of patronizing its advertisers when anything necessary can be purchased from

those who help us with their patronage. To show that we are not alone in this request we submit for the perusal of our readers a few clippings from other State Journals and we earnestly ask the attention of our readers to both their letter and spirit.

The reason that business firms in other states advertise in the Journal is because they believe they have goods which our people would like to buy. They spend money to bring the market to us. This saves us money in going to, or trying to find the market. Ought we not to appreciate this and buy goods from them?—(Arizona Medical Journal.)

We must be able to convince prospective advertisers that we can give them results. Failing to do this, we cannot reasonably expect advertising patronage. Advertisers are all from Missouri. They want to be shown.—(Journal of the Arkansas Medical Society.)

Are you thinking of buying anything? If so, look through the advertising pages of The Journal and see what firms carry the articles you want—and advertise in your Journal. Go a step further than that and when you buy, let the firm know that you saw their advertisement in your Journal and that your patronage is a result. We do not permit the advertisement of any firm or any article that is not reliable to appear in our advertising pages, therefore you may depend upon them as a safe and sound business directory.—(California State Journal of Medicine.)

This is your Journal. The advertisers help support it. As they grow in number the journal will grow proportionately in size and value. Write to these people for more detailed information about the things they promote. Tell them that you saw their announcements in a journal the character of which places them above suspicion.—(Colorado Medicine.)

Our advertisers, by their patronage, help to support The Journal, and make its successful publication possible. In return they expect, and rightfully, a fair return for their money. Every dollar spent by a member of the Medical Association of Georgia with advertisers in our Journal, in preference to non-advertisers, is a dollar spent in advancing his own personal advantage, for he has contributed something indirectly to the betterment of his own property.—(Journal of the Medical Association of Georgia.)

We ask the cooperation of all the members in the effort to give the best State Journal, and to keep its pages clean. Read the advertising pages as carefully as you do the rest of The Journal. You will find them interesting. As you have occasion, use the goods mentioned herein; tell the advertiser where you saw the advertisement. If your patients need institutional care, find the institutional announcement in these pages. If you desire furniture or automobiles, look up our advertising. Do you need a consultant? Look up our advertisers.—(Journal of the Iowa State Medical Society.)

If you wish The Journal to become

self-supporting, then at every opportunity give the advertisers your preference. You can depend on the pharmaceuticals advertised in The Journal, because to be there they have to be approved by the Council on Pharmacy and Chemistry. Therefore they are dependable.—(Journal of the Kansas Medical Society.)

"Quacks" don't advertise in The Journal. All our advertisements are trustworthy. Buy from the advertisers who buy space in your Journal. Reciprocity is not only desirable, it is a good business principle.—(Bulletin of the Medical and Chirurgical Faculty of Maryland.)

We ask but fifteen minutes of your time to peruse our advertising pages carrying none but honest advertisements from reliable business firms and manufacturers. Here and there you will undoubtedly note something that you need and intended to purchase. Send your order to those who patronize *your Journal* and also tell them why you are doing so. These firms will accord you courteous and honest treatment.—Journal of the Michigan State Medical Society.)

In writing to advertisers, use the specific address therein given. The postoffice box, or the number of the street, may be the "key" which signifies that you saw the announcement in the New York State Journal. Give the Journal the credit for putting you in touch with the advertiser. Reciprocate our favor to you.—(New York State Journal of Medicine.)

The matter of unethical, low-grade

and inferior producers is not carried in our pages. They have not enough money to buy our space. Every effort is made to keep our advertising pages as clean as the cleanest, and it is the policy of your Council to maintain high-class advertising pages or none; so when you read an advertisement in your Journal you may be assured that the offering is ethical and reputable and that you have no good right to go elsewhere if they can serve your wants.—(Journal of the Oklahoma State Medical Association.)

Our readers can help us materially to firmly establish the Journal in a profitable advertising business by making it a practice to give the same attention to our advertising pages that they give to our reading pages *and let the advertiser know it*. . . . It is up to the advertiser to have what the reader wants and to convince the reader that he wants it; it is our part to supply the medium for this publicity.—(Texas State Journal of Medicine.)

The man who advertises is not a philanthropist seeking for opportunities to give away his money; he is a business man attempting to enlarge his list of acquaintances and customers. If a journal is to obtain and keep the best grade of advertising, the advertiser must have some evidence that his "announcements are being read."

This Journal belongs to the State Medical Society, and every member owns a share in it and is interested in its financial success. Why not help things along by looking over the advertising pages when you are in need of surgical or medical or orthopedic or automobile supplies of any kind to see

who is anxious to supply your wants? And when you write to inquire about anything mention The Journal, your Journal.—(Wisconsin Medical Journal.)

To all the above we say "Amen" and now just a word in conclusion. With this issue the term of office of the present managing editor ends. He does not know what the Council of our State Society intends to do in the matter of the election of a managing editor for the ensuing year, but he feels certain of one thing and that is that the Journal of your society—the New Mexico Medical Journal—is clean and honest in its advertising pages. There is just this thought in closing: the future of this Journal, as indeed the future of all state journals, depends absolutely upon the measure of support that is given to it by the members of the State Society and this support MUST BE made to cover the return of favors wherever possible in the advertising pages.

At the Third Annual Meeting of Alierists and Neurologists of the U. S. held under the auspices of the Chicago Medical Society, for the purpose of discussing Mental Diseases in their various phases, July 17th, 1914, the committee on "The Causative Forces of Mental Deficiency" reported the following resolutions, which were unanimously adopted:

"We feel it unwise at this time to make any recommendations in regard to constructive legislation owing to the lack of proper evaluation of available data as to causes and sources of mental deficiency.

"We do, however, recommend and

urge regulation of mental deficient and the furthering of investigations as to the causes and sources."

The committee on the Prevention of Insanity, reported the following resolutions, which were unanimously adopted:

"Whereas, it is well recognized by alienists and neurologists the world over that certain major factors are the chief cause of physical conditions accompanied by mental derangement and deficiency, and

"Whereas, these major causes are largely, if not wholly, controllable and eradicable, and

"Whereas, these major causes are alcoholism, habit producing drugs, venereal diseases, work in unsanitary and unhygienic surroundings, and hereditary influence including the immigration of the physical and mental unfit.

"Therefore, Be it Resolved, First: That we recommend to the proper state authorities, the absolute control of the sale of alcohol until such time as actual prohibition be enacted.

"Second: That the sale of all habit inducing drugs be strictly regulated in all states of the Union.

"Third: That municipal or state control of venereal diseases be established, with proper treatment for indigent patients, to the end that the spread of syphilis and gonorrhea be prevented.

"Fourth: That proper, special hospitals for the care and treatment of alcoholism and drug addictions be established.

"Fifth: That Municipal, state and national inspection of labor conditions be regularly maintained and child labor abolished.

Sixth: That no known defective dangerous to himself and to others, should be permitted to have unrestricted liberty.

"Seventh: That adequate teaching of the principals of heredity and sex life be initiated and fostered in the home with the view to its introduction into the curricula of schools—above the grammar grades, this instruction to be given to the sexes separately.

"Eighth. That the various states pass reasonable and universal marriage laws, that will be reciprocal, in preventing the marriage of the physical and mental unfit.

"Ninth: That a Psychopathic Laboratory be connected with the Criminal Courts, Common Schools, Railroads, Transportation Companies and Public Service Utilities, responsible for the actual safety of the general public should have their employees regularly examined as to their physical and mental fitness.

"Tenth: That, inasmuch as state, county and city public health institutions should have as their superintendents, men of highest qualifications, who may devote their best efforts to their tasks, we recommend that all such positions be subject to civil service examinations.

"Eleventh: That in addition to the above, we recommend a nation-wide campaign of education conducted through the public press, university and medical schools, boards of health, state, county and city boards of education, women's clubs and other proper educational mediums, upon the true significance of the development—physical, mental and moral—of the individuals and the race and finally, we recommend that a committee be appointed

to promote the enactment of the above resolutions."

The committee on "Alcoholism as a Causative Factor of Insanity" reported the following resolutions, which were unanimously adopted:

"Whereas, In the opinion of the meeting of Alienists and Neurologists of the United States in convention assembled, it has been definitely established that alcohol when taken into the system acts as a definite poison to the brain and other tissues; and

"Whereas, The effects of this poison are directly or indirectly responsible for a large proportion of the insane, epileptics, feeble-minded, and other forms of mental, moral and physical degeneracy; and

"Whereas, The laws of many states make alcohol freely available for drinking purposes; and therefore cater to the physical, mental and moral degradation of the people; and

"Whereas, Many hospitals for the Insane and other public institutions are now compelled to admit and care for a multitude of inebriates; and

"Whereas, Many states have already established separate colonies for the treatment and re-education of such inebriates, with great benefit to the individuals and to the commonwealths.

"Therefore Be it resolved that we, unqualifiedly, condemn the use of alcoholic beverages and recommend that the various state legislatures take steps to eliminate such use; and be it further

"Resolved, That we recommend the general establishment by all states and territories of special colonies or hospitals for the care of inebriates; and

"Resolved, that organized medicine should initiate and carry on a systematic, persistent propaganda for the ed-

ucation of the public regarding the deleterious effects of alcohol; and

"Be it Further Resolved, That the medical profession should take the lead in securing adequate legislation to the ends herein specified."

The committee on "Syphilis as a Causative Factor of Insanity," reported the following resolutions, which were unanimously adopted:

"Whereas, Syphilis is responsible for a large percentage of all insanity and mental deficiency,

"Be It Resolved That:

"First: Health Departments, (Municipal and State) should be equipped to make laboratory examinations for venereal diseases.

"Second: All Hospitals for the Insane should be equipped to make laboratory examinations for venereal diseases.

"Third: Hospitals and Dispensaries for the treatment of venereal diseases, should be provided.

"Fourth: Physicians should be compelled by law to report cases of venereal diseases, as is now done in other contagious diseases.

"Fifth: Applications for marriage should be required to furnish health certificates.

"Sixth: Lectures and Bulletins should be offered freely to the public regarding venereal diseases.

"Seventh: Newspapers should be requested to use their best influence to educate the people concerning venereal diseases.

"Eighth: Sex Hygiene should be taught in the public schools, above grammar grades, to the sexes separately."

The proceedings of the Third Annual Meeting of Alienists and Neurolo-

gists of the U. S. held under the auspices of the Chicago Medical Society, July 13-17th, 1914, will be published in one volume by the Illinois State Medical Journal. It will be in double column, the type and size of page the same as the Journal, and will comprise from four to six hundred pages. This book will contain the papers read and their discussions, together with resolutions adopted. The subjects covered are, Acquired Insanity, Epilepsy, Mental Defectives, Alcoholism, Abderhalden Test, Syphilis, etc.

The subjects of special interest are,

First: The Abderhalden Test (Especially in Dementia Praecox) which embraces the technic for the preparation of the substrates, mixing of materials in the test tubes, and the interpretation of the reaction. This will comprise one of the most complete Symposiums on the Abderhalden Test, so far, printed in this country.

Second: Syphilis. The diagnosis of early Syphilis by the Dark Field Illuminator. The technic for obtaining and mounting the specimen for the Dark Field examination. The technic for staining specimens obtained from local lesions and mucous patches, and the method for preparing and staining tissues for sections, for microscopical examination.

The Wassermann Test: The technic for preparing materials, the method for mixing the same in test tubes, and interpretation of the reaction.

Third: The treatment of early and late Syphilis is up to date, and embraces the technic for mixing and the method of administering intravenously Salvarsan and Neosalvarsan, also the technic and method for Intra-Spinal administration of Neosalvarsan and Neosal-

varsanized serum in Locomotor Ataxia and Paresis.

The proceedings will be published and ready for distribution by October or November 1914. As only a limited number is left unsubscribed for, those wishing the publication will please send their subscription at once, as there will not be a second edition. The price of book is \$2.00. Send subscription to the Editor of the Illinois State Medical Journal, Dr. Clyde D. Pence, 3338 Ogden Ave.

“CONSTIPATION.”

There is not an article on constipation which does not emphasize the failure of drugs to correct the condition and the basic importance of a diet which leaves a soft, bland residue in the intestinal canal. This is the foundation of the agar-agar treatment and of all dietaries designed to correct constipation.

The Advertising Bureau of the American Medical Association has been in correspondence and personal conference for months, with the manufacturers of a breakfast food, shaping their advertising to conform to the standards of the Bureau to the end that this food may be advertised in the state medical journals. The page ad of the Uncle Sam Breakfast Food Company in this issue is the result.

This article is presented as a food which answers all the requirements of a breakfast cereal in calory value and which, at the same time, corrects constipation through the bland residue left in the colon.

We ask the attention of our readers. Like all other articles advertised in this Journal, we stand back of what this ad says. It costs nothing to send

in their coupon and make a trial of this food. This company should receive a hundred of these coupons within the next two weeks.—(Arizona Medical Journal.)

Recent years have been marked by some important contributions to the theory and especially to the practice of surgical anesthesia, but there has lacked what is now quite needed for the further scientific development of this alongside the other departments of surgery—a journalistic medium and editorial mouthpiece.

The American Journal of Surgery will be expanded to meet this need. Beginning with the October issue and quarterly thereafter, this journal will publish a 32 page supplement devoted exclusively to Anesthesia and Analgesia.

This supplement will be a complete journal within a journal containing editorials, contributed articles and communications, abstracts, transactions of Societies and book reviews.

The supplement has been adopted as the official organ of the American Association of Anesthetists and the Scottish Society of Anesthetists and it will also publish the transactions of other like societies.

The editor of this supplement will be Dr. F. Hoeffer McMechan of Cincinnati, one of the founders of the American Association of Anesthetists and a charter member of the New York Society of Anesthetists.

He will be assisted by a staff of well known specialists in Anesthesia, among whom we would mention: Dr. James T. Gwathney, New York; Dr. Willis D. Gatch, Indianapolis, Ind.;

Dr. William Harper De Ford, Des Moines, Ia.; Dr. Charles K. Teter, Cleveland, O.; Dr. E. I. McKesson, Toledo, O.; Dr. Isabella C. Herb, Chicago, Ills., and Dr. Yandel Henderson of Yale University.

MEDICAL EDUCATION STATISTICS FOR 1914

The Journal A. M. A., August 22, 1914, the annual Educational Number, contains statistics of medical colleges, students and graduates for the year ending June 30, 1914. There were 16,502 students studying medicine this year, 513 less than in 1913. These are divided into 15,438 in the non-sectarian colleges, 794 in the homeopathic colleges, and 270 in the eclectic colleges.

There were 3,594 medical graduates this year, 387 less than in 1913, and 889 less than were graduated in 1912. The non-sectarian colleges had 3,370; the homeopathic had 154 and the eclectic had 70. This is the lowest number of graduates since 1890.

There are six less colleges than in 1913, the total now being 101, consisting of 87 non-sectarian, 10 homeopathic and 4 eclectic colleges.

Since 1904, 85 medical schools have been closed, 49 of which were merged into other medical schools and 35 became extinct. During the same time twenty-four new colleges were organized, making a net reduction of 61 colleges. This reduction in the number of medical schools is not restricting the opportunities of students to study medicine but is insuring them a better training. The large over-supply of medical schools in this country is giving way to a more normal supply of better equipped colleges. Of the 85 colleges which closed, 62 had been rat-

ed in Classes B and C by the Council on Medical Education of the American Medical Association. A large majority of those closed, therefore, were inferior colleges.

The marked reductions in the numbers of medical colleges, students and graduates is the reaction which would naturally follow the stupendous over-supply which this country possessed ten years ago. There would be no possibility of a scarcity of physicians in this country for years to come, even though the number of medical schools was again reduced by half.

Women students constituted 3.8 per cent of all students, and of all graduates, 3.4 per cent were women. Statistics show that college terms are being gradually lengthened. In 1901, 100 colleges had annual sessions of only 23 to 28 weeks each. Now only two colleges have such short sessions and about 95 per cent have sessions of from 31 to 36 weeks. In 1904 only 42 per cent of the colleges had sessions of 31 or more weeks.

Tabulated statistics of college fees, including matriculation, tuition and laboratory fees, show that 14 colleges charge \$100 or less for each student per year, 66 colleges charge between \$100 and \$175 per year, and 21 charge \$175 or more. Among the colleges charging fees of less than \$100 are several strong state university medical colleges. On the other hand eleven colleges listed by the Council in Class C charge fees from \$100 to \$175 per year for each student. Considering the fact that diplomas from Class C colleges are reported as not recognized as a qualification for license by thirty-one state licensing boards it would be poor economy to attend one of these

colleges because of the slight difference in fees charged. In some cases it is a fact that in the same time and for even less money the student could attend one of the best equipped colleges, the diplomas of which are recognized in all states. Financial reports from 65 acceptable medical schools show an average actual expenditure for each student for one year of \$435 while each student paid on the average in fees only \$122. This shows that to furnish an adequate training medical schools must have more income than is derived from students' fees, in the form of either state aid or private endowment.

Of the 101 existing colleges, 84, or over 83 per cent now require one or more years of work in a college of liberal arts for admission, and several others have announced the higher requirement to take effect in 1915. Of this number, 34 require for admission two or more years of collegiate work. That marked progress in this respect has been made, is shown by the fact that in 1904 only 4 colleges (less than three per cent) required any collegiate work for admission. Twenty state licensing boards have established the requirement for preliminary education of one or two years' work in a college of liberal arts, thereby supporting the better class of colleges which have adopted that standard. Seven of these require two years of collegiate work, the equivalent to that required by university medical schools for the six year combined course for the B. S. and M. D. degrees.

Of the 3,594 medical graduates in 1914, 807 or 22.5 per cent were also graduates of colleges of liberal arts as compared with 19 per cent last year.

This shows a decided improvement in the qualifications of those who are to practice medicine.

In recent years medical colleges have been greatly improved by the securing of endowments, new buildings, better equipped laboratories, better dispensary and hospital facilities and—most important—larger numbers of expert, full-time teachers. Improvements have been particularly rapid since the creation by the American Medical Association of the Council on Medical Education, in 1904.

LICENSES GRANTED.

East Las Vegas, N. M., Sept, 1, 1914.
The Journal of the New Mexico Medical Society,
Las Cruces, N. M.

The following licenses were issued at the meeting of the Board of Medical Examiners, July 13, 1914.

Upon credentials—

Harvey E. Hall, graduate of Rush Medical College, 1890.

Wm. H. Cressy, Tulane University, 1914.

Wm. E. Johnson, Colorado University, 1913.

Wm. F. Shaw, Detroit College of Medicine, 1900.

Richard T. Speck, Hahnemann, Kansas City, 1910.

Francisco Armendariz, Mexico City University, 1888.

John F. Guthrie, Missouri Medical, 1885.

Fred M. Lapham, Baltimore Medical, 1911.

Joseph H. Hilton, Northwestern, Chicago, 1913.

Purdy S. Bailey, Tulane University, 1909.

George T. Barcklow, Louisville University, 1912.

Upon examination:

Edgar T. Lassetter, Southern Coll. of Med. & Surg., Atlanta, 1913.

W. E. KASER,, Secretary.

PROGRAM, THIRTY-THIRD
ANNUAL MEETING

Program of the Thirty-Third Annual Meeting of the New Mexico State Medical Society, Albuquerque, New Mexico, October 5th, 6th and 7th, 1914.

October 5th, 9 a. m.—Registration at secretary's desk.

9:30—Meeting House of Delegates, 10:30—General Meeting.

Invocation by Rev. Hugh Cooper.

Address of welcome—Mayor D. H. Boatright.

Address of welcome on behalf of the Bernalillo County Medical Society—Dr. J. A. Reidy.

Response to addresses of welcome—Dr. S. D. Swope, Deming.

President's Address, "Eugenics"—Dr. H. B. Kauffmann, Albuquerque.

Following the address of the president the work of the various sections will be in order.

SECTION ON PRACTICE.

October 5th,

1. Chairman's address, Be a Man, a Sermonette—Doctor C. M. Mayes, Roswell.

2. Pellagra—Doctor M. M. Thompson, Logan.

To open discussion—Doctor C. F. Beeson, Roswell.

3. Report of a Case of Acetonemia—Doctor F. W. Noble, Tucumcari.

To open discussion—Doctor J. A. Reidy, Albuquerque.

4. The Physician and the Better Baby—Doctor Margaret Cartwright, Albuquerque.

5. The Relation of Tuberculosis to Child Welfare—Doctor L. S. Peters, Albuquerque.

6. Human Waste and the Children of the Needy—Doctor C. E. Lukens, Albuquerque.

To open discussion on papers of Doctors Cartwright, Peters and Lukens—Doctor R. E. McBride, Las Cruces.

7. Herpes Zoster—Doctor J. R. Gilbert, Alamogordo.

To open discussion—Doctor E. B. Shaw, East Las Vegas.

8. The Pulmotor, with Demonstration—Doctor B. F. Stevens, El Paso, Texas.

To open discussion—Doctor W. W. Spargo, Albuquerque.

9. Infection with the Cercomona Hominis—Doctor Elliott C. Prentiss, El Paso, Texas.

To open discussion—Doctor J. W. Elder, Albuquerque.

10. Epidemic Diseases in the Southwest—Doctor T. C. Sexton, Las Cruces.

To open discussion—Doctor W. T. Joyner, Roswell.

11. Hysteria and Hysterical Conditions—Doctor Lewis C. Day, Albuquerque.

To open discussion—Doctor W. R. Tipton, East Las Vegas.

12. The Duty of the Physician to the Laity—Doctor W. G. Hope, Albuquerque.

To open discussion—Doctor J. H. Wroth, Albuquerque.

13. Abdominal Diagnosis, With Special Reference to Pain—Doctor William R. Lockett, Carthage.

To open discussion—Doctor William Howe, East Las Vegas.

SECTION ON SURGERY AND THE SPECIALTIES.

October 6th.

1. Chairman's Address—Doctor D. H. Carnes, Albuquerque.

2. Sarcoma of the Kidney, Report and Specimen—Doctor S. D. Swope, Deming.

To open discussion—Doctor James Vance, El Paso.

3. Some Interesting Cases with Erroneous Surgical Diagnosis—Doctor H. R. McGraw, Denver, Colo. (Fraternal Delegate, Colorado Medical Society.)

To open discussion—Doctor P. G. Cornish, Albuquerque.

4. Bismuth Paste Poisoning, Report of a Fatal Case—Doctor C. E. Yount, Prescott, Arizona. (Fraternal Delegate, Arizona Medical Society.)

To open discussion—Doctor T. C. Sexton, Las Cruces.

5. Intussusception in Children—Doctor James Vance, El Paso, Texas.

To open discussion—Doctor C. E. Yount, Prescott, Arizona.

6. Principles of the Growth of Bone and their Practical Application, with lantern slides and specimen—Doctor W. L. Brown, El Paso, Texas.

To open discussion—Doctor H. R. McGraw, Denver, Colo.

7. Trachoma and its Treatment—Doctor T. F. Tannus, Santa Fe.

8. Surgical Treatment of Trachoma, lantern slide illustrations—Doctor E. R. Carpenter, El Paso, Texas.

To open discussion on papers on Trachoma—Doctor C. F. Losey, East Las Vegas.

9. Report of Three Cases of Blindness Due to Suppuration of the Nasal Accessory Sinuses, lantern slide illustrations—Doctor H. H. Stark, El Paso, Texas.

To open discussion—Doctor F. E. Tull, Albuquerque.

10. The Proper Treatment of New Growths—Doctor W. W. Waite, El Paso, Texas.

To open discussion—Doctor M. K. Wylder, Albuquerque.

11. The Perineum—Doctor William Howe, East Las Vegas.

To open discussion—Doctor W. R. Lovelace, Albuquerque.

SECTION ON TUBERCULOSIS.

Held jointly with the New Mexico Society for the Study and Prevention of Tuberculosis, in Sixth Annual Session, October 7th.

1. President's Address—Artificial Pneumothorax in the Treatment of Tuberculosis—Doctor A. G. Shortle, Albuquerque.

2. Artificial Pneumothorax in the Treatment of Tuberculosis—Doctor Earl H. Bruns, Fort Bayard.

To open discussion—Doctor Chas. E. Giese, Colorado Springs, Colo.

3. What the Large Corporations Are Doing to Stamp Out Disease in Their Plants—Doctor W. T. Brown, Wattrous.

To open discussion—Doctor Jos. S. Cipes, Albuquerque.

4. Diagnostic Difficulties in Tuberculosis, Illustrated by a Series of Cases—Doctor Chas. O. Giese, Colorado Springs, Colo.

5. Report of Two Cases of Actinomycosis of the Lungs—Doctor R. B. Homan, El Paso, Texas.

To open discussion of papers of Doctors Giese and Homan—Doctor David C. Twichell, Silver City.

6. The Effect of the Direct Rays of the Sun on Experimental Tuberculosis—Doctor David C. Twichell, Silver City.

To open discussion—Doctor J. F. McConnell, Colorado Springs.

7. Abdominal Tuberculosis—Doctor C. M. Hendricks, El Paso, Texas.

To open discussion—Doctor R. B. Homan, El Paso, Texas.

8. Immunity and Tuberculosis—Doctor Jos. S. Cipes, Albuquerque.

To open discussion—Doctor E. C. Prentiss, El Paso, Texas.

9. The Optimum Dose of Tuberculin—Doctor J. F. McConnell, Colorado Springs, Colo.

10. Tuberculin Treatment of Tuberculosis—Doctor Leroy S. Peters, Albuquerque.

To open discussion on papers of Doctors McConnell and Peters—Doctor Earl S. Bruns, Fort Bayard; Doctor C. M. Hendricks, El Paso, Texas.

Members will please remember that the time limit of papers is twenty minutes and that five minutes is all that is given to any one person for discussion. As the program is rather full this rule will have to be strictly adhered to. It must also be remembered that all papers read before the society become the property of the society and are published in the Journal of the Society. Where requested, the society will permit joint publication in another journal, but this is not to be desired.

The committee on arrangements has provided an auto ride, buffet lunch, dance and cards for Monday evening, October 5th at the Albuquerque Sanatorium.

The annual banquet will be held on the night of Tuesday, October 6th, at the Alvarado Hotel. Members are requested to make their banquet reservations some time ahead in order that the committee may have some idea as to the attendance. Reservations for the banquet may be made by writing Doctor M. K. Wylder, Albuquerque. The price is two dollars per plate.

The arrangement committee of the Bernalillo County Medical Society is composed of Doctors M. K. Wylder, L. S. Peters and H. B. Kauffmann. Doctor Peters will attend to the reservation of rooms for members if written to.

Please register at the secretary's desk as soon as possible after your arrival.

LAW GOVERNING THE PRACTICE OF MEDICINE IN NEW MEXICO

An Act to Regulate the Practice of Medicine in New Mexico and to Establish a Board of Health and Medical Examiners.

Be it enacted by the Legislative Assembly of the Territory of New Mexico:

Section 1. That a board is hereby established to be called The New Mexico Board of Health and Medical Examiners, which shall be composed of seven reputable physicians of known ability, who are graduates of medical colleges in good standing, as herein-after defined, and have been registered practitioners in, and bona fide residents of the Territory of New Mexico for a period of five years next preceding the date of their appointment. The governor of New Mexico shall appoint the members of said board as other territorial officers are appointed, and shall

fill any vacancies occurring in said board, and may remove any member of said board who fails to perform his duties as hereinafter defined. Three of the members of said board so appointed shall hold their offices for a period of two years, and the remaining four members of the board shall hold their offices for a period of four years, and thereafter the members of said board, upon the expiration of the terms aforesaid, shall hold their offices for a period of four years and until their successors are elected and qualified. All members of said board shall qualify as now required of the Board of Regents of the University of New Mexico.

Sec. 2. Within sixty days after their appointment, the members of said board shall meet in the Capitol Building in the City of Santa Fe, New Mexico and organize by electing one of their number as president, one as vice-president, one as secretary and one as treasurer, and thereafter regular meetings of said board shall be held in the said Capitol Building on the second Mondays of January, April, July and October in each year, and there shall be not less than two days' session at each meeting. Special meetings may be held at any time upon call of the president by written notice to all the members of the board, in which notice the object of the meeting shall be fully stated. A majority of the members shall constitute a quorum for the transaction of business, but a less number may meet and adjourn to some fixed date.

Sec. 3. The said board shall, upon the production of evidence satisfactory to it, license without examination any reputable person who is a graduate of

a medical college in good standing, as defined in this act, and who personally appears before the board at a regular meeting. A medical college in good standing for the purposes of this act, is defined to be one which has a standard as high as that required by the Association of the American Medical Colleges, and which has ample clinical facilities. Said board, at its April meeting in each year, shall prepare and cause to be printed and distributed for the information of those interested a copy of this law. The board shall not recognize any college which misrepresents its records, its teaching, its clinical facilities or as to its students or graduates. No college of any foreign country shall be recognized, except to the same extent as such foreign country recognizes American colleges, and when said foreign college is of good standing under the laws of New Mexico. No license shall be granted except by the board at a regular meeting, and every applicant for license shall appear in person before such board. Such boards may recognize any honorary or emeritus degree conferred upon any foreigner by any such college as fully and to the same extent as if the applicant were a regular graduate thereof.

Sec. 4. Such board shall also license reputable graduates of any reputable college in addition to those of other colleges in good standing, as defined by this act, who are of good moral and professional character and conduct, and have served an internship in a good hospital, or who have taken a six months' post-graduate course in some institution having ample clinical facilities, or who have had three years or more of actual practice

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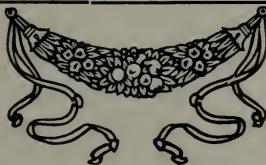
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since graduation. Provided, That all applicants for licenses, of the classes referred to in this section, shall be examined on the following, and such other subjects as the board may from time to time prescribe: Anatomy and Histology, 10 questions; Chemistry, 5 questions; Etiology and Hygiene, 5 questions; Physiology, 5 questions; Materia Medica, 10 questions; Therapeutics, 10 questions; Pathology and Bacteriology, 5 questions; Surgery, 10 questions; Physical Diagnosis, 10 questions; Obstetrics, 10 questions; Gynecology, 5 questions; Practice of Medicine, 10 questions; Medical and Jurisprudence, 5 questions. An average of 75 per cent must be obtained at such examination by each applicant, and not less than 50 per cent must be obtained on each subject; the board shall allow an applicant credit marks of 5 per cent for five years of active practice; Provided, That such board may grant licenses without examination to those applicants who have been regular licensed physicians, in other states and territories, having qualifications and requirements equivalent to those required in New Mexico when such states and territories reciprocate with New Mexico. The president and secretary of said board are hereby empowered to administer oaths to applicants and all witnesses and others appearing before said board in any application or proceeding provided for herein. And any person making a false oath or affidavit before such president or secretary in any such proceeding shall be deemed guilty of perjury and be subject to the punishment provided for that crime. Whenever any applicant for license shall have been examined as hereinbefore provided

ed, and shall have failed to reach the required percentage in not more than two of any of the subjects hereinbefore designated, the board may in its discretion allow such applicant another examination on the subjects in which he shall have so failed at its next regular meeting, and may in its discretion issue him a temporary license to practice medicine in the Territory of New Mexico until such next meeting and until his second examination shall have been passed upon and decided by such board.

Sec. 5. Every person holding a certificate of said Board of Health shall have the same recorded in a book provided for that purpose in the office of the probate clerk of the county wherein the practitioner resides, within thirty days after said certificate is issued, and the date of the recording shall be endorsed on said certificate. Said certificate or copy of the registration, must be again recorded in any county to which the practitioner may remove permanently. And the fact that no such certificate shall be found recorded in the county where any person practicing or offering to practice medicine shall be accepted by the courts as *prima facie* evidence that no such certificate has been issued, and shall throw the burden of proving that he has a certificate upon the defendant in any suit or prosecution begun against him for the violation of the provisions of this act.

Sec. 6. It is hereby made the duty of this board to refuse to license any person guilty of immoral, dishonorable or unprofessional conduct, and said board shall also revoke and annul any license which has been issued by said board, or any previous board, upon satisfactory proof being made to said

board that the holder or said certificate or diploma has been guilty of immoral, dishonorable or unprofessional conduct. The code of ethics as adopted by the American Medical Association shall apply to and govern all physicians and surgeons in this Territory heretofore licensed, or who shall hereafter be licensed, to practice medicine in New Mexico. Twenty days' notice shall be given in writing to the person accused of improper conduct, with a copy of the charge against him, requiring him on a day named to appear before the board and show cause why his license should not be revoked or cancelled. When any such license has been revoked or cancelled by said board, the said board shall send notice in writing under the hand of the secretary, which notice shall be filed for record and recorded in the book in which the physician's licenses are recorded, in the office of the probate clerk of the county in which the person, whose license has been revoked, resides. Any person whose certificate has been revoked or cancelled by said board, under the provisions of this act, who shall thereafter practice or attempt or offer to practice medicine in New Mexico shall thereby become guilty of a misdemeanor and shall be punished as provided in Section 9 of this act.

Sec. 7. For the purpose of this act the words "practice of medicine" shall mean to open an office for such purpose or to announce to the public or any individual in any way, a desire or willingness or readiness to treat the sick or afflicted, or to investigate or diagnose, or offer to investigate or diagnose any physical or mental ailment or disease of any person, or to suggest, recommend, prescribe or di-

rect, for the use of any person, any drug, medicine, appliance or other agency, whether material or not material, for the cure, relief of palliation of any ailment or disease of the mind or body, or for the cure or relief of any wound, fracture or bodily injury or deformity, after having received or with the intent or receiving therefor, either directly or indirectly, any bonus, gift or compensation. Provided, That nothing in this act shall be construed to prohibit gratuitous services in cases of emergency, or the domestic administration of family remedies, or women from practicing midwifery, and this act shall not apply to surgeons of the United States in the discharge of their official duties, and, Provided, further, that nothing in this act shall be construed so as to interfere with the practice of Osteopathy, Optometry, or Dentistry, as provided for by law.

Sec. 8. Each applicant for a license to practice medicine in New Mexico shall pay the secretary of this board a fee of twenty-five dollars (\$25.00) at the time of making this application.

Sec. 9. Any person who shall practice medicine, or who shall attempt to practice, without first complying with the provisions of this law, and without being the holder of a license entitling him to practice medicine in New Mexico, shall be punished by a fine not to exceed one hundred dollars (\$100.00), or imprisonment in the county jail not to exceed ninety days, or by both such fine and imprisonment, in the discretion of the court.

Sec. 10. One-half of every fine collected under the provisions of this act, shall be paid by the court in which conviction is had to the treasurer of the

county in which the offense is committed, to be by him placed to the credit of the common school fund of such county. The other half of all such fines and all fees to be provided to be paid shall go to and be the property of said board, and shall be by the treasurer of said board kept in some bank designated by said board. He shall give bond to the board in the sum of one thousand dollars (\$1,000.00) conditioned for the faithful performance of his duties as treasurer, and that he shall pay over any and all sums of money received by him as such upon the proper order thereof. Such bond shall be given by some fidelity or surety company authorized to do business in this Territory, and the premiums therefor shall be paid by the board as one of its necessary expenses. All the expenses of the members of said board necessarily and properly incurred in attending the sessions of said board, and for necessary supplies, shall be paid out of the funds of said board upon the order of the president, countersigned by the secretary of the said board. The treasurer of the board shall keep a correct and itemized account of all moneys received and disbursed, and shall make a report to the board at each meeting. The secretary of said board is required to report the doings and proceedings of said board, together with the amount of all moneys by it received and disbursed and on what account, with items, on the first day of December of each year, to the governor of New Mexico.

Sec. 11. Said board is hereby authorized and empowered to make all necessary rules and regulations for carrying out the provisions of this act.

Original Articles

A CASE OF ADIPOSIS DOLO-ROSA.

CHARLES TURNER SANDS, M. D.,
Las Cruces, New Mexico.

The following case is reported not because it presents any departures from the classical descriptions of the disease, but because the condition itself is sufficiently uncommon to be of interest.

Adiposis dolorosa was first described by F. X. Dercum of Philadelphia in 1888 and is sometimes known as "Dercum's Disease." The etiology of the condition is obscure. Pathologic changes in the thyroid gland were found in six out of seven cases examined, upon which is based the empiric treatment of the disease by thyroid extract. Three forms of the disease have been described: the lipomatous; the localized fatty; and the diffuse fatty. The present case is of the lipomatous variety.

Patient. Mrs. K.—. American, married, aged 54, housewife, consulted me on June 28, 1913, complaining of pain in the right clavicular region associated with localized swelling.

Present Illness. Five years ago patient developed pain at the angle of the right scapula. Pain was sharp and stabbing in character and was made worse by motion of the arm. Coincident with the development of the pain a firm lump, "about one half the size of a hen's egg," appeared at the angle of the scapula. There was no discoloration; the lump was painful on pressure. The lump persisted for some months, became softer and finally dis-

appeared, a dull ache remaining in the shoulder. Six months ago a swelling the size of a hen's egg developed on the anterior chest wall immediately below the right clavicle. Swelling is soft, elastic, and slightly tender and is associated with sharp, burning, neuralgic pain extending into the axilla and down the arm. Pain is worse on movement and deep breathing.

Family History. Father living and well. Mother dead (18), childbirth." Mother's family all died at an early age. Six half-brothers and one half-sister living and well. No history of hereditary diatheses in family.

Past History. Normal, healthy infancy. Usual diseases of childhood with prompt recovery. Enteric fever fourteen years ago, good recovery. Measles followed by jaundice twelve years ago, good recovery. Suffered from malaria for several years. Has had nine children and two miscarriages; all her confinements were normal. Patient passed through menopause nine years ago, this was characterized by menorrhagia, sometimes lasting for twelve days, was at no time associated with pain.

Present Condition. Patient appears fairly healthy and well nourished. Height, 5 ft. 4 in. Weight, 121 pounds. Temperature, 98.2 F. Pulse, 76, regular. Respiration, 18. Blood-pressure, S. 130 mm. Hg., D. 100 mm. Hg. Urine contains a trace of albumen and a few hyaline casts. Pupils normal. Thyroid not enlarged. Heart and lungs apparently normal. Abdomen negative. A soft, elastic, sharply circumscribed tumor directly below right clavicle, slightly sensitive to pressure. No edema nor discoloration over or in the neighborhood of the mass. Patient

says her general health is fairly good, and complains of no symptoms other than those associated with the local condition.

Treatment and Course. Thyroid extract was prescribed, beginning with 2 grains daily and increasing the dose to 6 grains daily. Three weeks after the beginning of treatment the pain and tenderness had disappeared and there was marked improvement in general health. There was no apparent change in the tumor mass. At this time the patient removed to another part of the state and passed from under my observation. Three months later her husband reported that the patient had had continued freedom from symptoms and that there had been some diminution in the size of the tumor.

REPORT OF A CASE OF EPILEPSY TREATED WITH CROTALIN.

(With Notes and Observations Made by the Patient.)

R. E. McBRIDE, M. D.,
Las Cruces, New Mexico.

The following case report is made, not so much for the positive value as for the negative value. The patient was a particularly observant, well educated and intelligent lady who has been subject to epileptic seizures for a number of years.

The value of crotalins as an anti-epileptic has been much discussed in the literature of the past two years and I do not deem it necessary to go into any of the details of the case nor into the

details of the theory of the originator of this method of treatment. Suffice it to say that this was (and is) an ordinary case of epilepsy which had been given a fair show at relief by all of the older methods of treatment before the crotalin injections were begun. The last state of the patient differs in no respect from the condition as it was when the injections were first begun.

The notes following are just as they were made by the patient herself:

Nov. 20th, 1913—

Injection in left arm of 1-800 gr., given at 1:45 p. m. First sensation that of a deep, painful bruise. This increased in intensity for some minutes, a feeling of soreness and stiffness spreading downward to the hand and fingers, which seemed numb for some little time. This sensation gradually grew less and by 3 p. m. was much decreased, the hand and forearm gradually regaining the temperature of the other hand, after being decidedly cool.

3 p. m. Feeling of bruise, stiffness and numbness, while still present, slight.

Usual afternoon nap between 3 and 4. Awoke at 4 to find about the same degree of pain and stiffness in the arm as at 3, but a little increased in the region of the puncture.

5 p. m. Decided soreness about the puncture, with occasional aching of whole arm, especially in hand, though with slight pain now and then in region of the shoulder. the whole a discomfort easily sustained.

7 p. m. Soreness about the puncture more severe. Whole arm aching slightly.

9 p. m. Very painful to the touch about the puncture.

Slept as usual. Pain slight in the arm throughout the following morning, a point midway between elbow and shoulder on outer side of arm being almost as sensitive as region about the puncture—neither at all severe.

From this time on gradual decrease of sensations of pain and burning, though felt slightly at intervals for several days.

Nov. 29th, 1913—

Injection of 1-600 gr. in right forearm at 10:30 a. m. Same sensations of bruising, stiffness and numbness as at time of first injection though considerably less severe. Gradual increase, but no great discomfort until about 1 p. m. From that time on pain very severe about the puncture, great also in hand, gradually spreading into upper arm, with some swelling and stiffness also in forearm and hand, more than at first injection. From about the middle of the afternoon pain and general discomfort gradually decreased and at 8 p. m. slight.

Very slight discomfort on following morning and all pain gone in entire arm by evening of the 30th.

Took one "phenolax wafer" on retiring.

Dec. 1st had a very severe epileptic attack at 5:30 a. m. and four severe attacks and one minor the following night.

Dec. 11th, 1913—

Third injection in left arm of 1-600 gr. at 4:30 p. m. Sensations of pain and numbness less severe than before but increasing gradually until about 6 p. m. From that time decreasing. Slept comfortably. All pain and discomfort gone by morning.

Dec. 18th—Severe epileptic attack

at 11:30 p. m. Another severe attack the following night at 10:30 p. m. In both these attacks the customary resulting discoloration beneath and about the eyes was lacking.

Dec. 22nd—Minor attack at 5:45 a. m.

Dec. 20th, 1913—

Fourth injection in right arm of 1-400 gr. at 10:30 a. m. Immediate sensations painful but not increasing much in intensity.

Pain gone the following morning.

Dec. 30th, 1913, 11 a. m.—

Fifth injection, left arm, 1-300 gr. Pain very severe, more stiffness and swelling of hand and arm than heretofore. Although diminishing gradually pain was felt until about noon of following day.

Jan. 7th, 1914—Severe epileptic attack at 6:15 p. m.

Jan. 17th, 1914—Sixth injection of 1-300 gr. at 11:00 a. m. Same results as heretofore but in less severe form as regards pain and numbness. Swelling about puncture greater.

Jan. 30th, 1914—Severe epileptic attack at noon, with three severe attacks the following night at 10:00, 12:10 and 3:25.

Jan. 31st to Feb. 6th, menstrual period, slight discharge.

Feb. 7th—Seventh injection in left arm of 1-300 gr. at 11:30 a. m. Slight pain at time of injection, but increasing in severity with passage of afternoon. Considerable swelling of hand and lower arm. Pain gone by noon of the 8th.

Feb. 8th—Slight epileptic attack at 1 p. m. No loss of consciousness.

Feb. 14th—Severe epileptic attack at 10:30 a. m.

Feb. 16th—Slight epileptic attack at 2:45 a. m.

Feb. 15th to March 5th, inclusive, menstrual period, profuse discharge.

March 4th—Jagged rings of light before the eyes, took three five grain pellets of strontium bromide at 10 a. m., repeating dose in evening and again three times the following day.

March 7th—Eighth injection of 1-200 gr. at 11:30 a. m. Pain acute and swelling and stiffness of arm pronounced, but all gone by the following morning.

March 31st—Flecks of light before the eyes at 11 a. m. Took three 5-gr. pellets of strontium bromide.

April 1st—11:30 p. m. Severe attack.

April 2nd—12:40 a. m., 2:20 a. m., 3:20 a. m. Severe attacks.

April 2nd—12:00 midnight, minor attack.

April 3rd—Took strontium bromide. April 4th—Ninth injection of 1-200 gr. crotalin. Pain and swelling in arm pronounced but disappearing the following day.

April 15th—Two tablets, 5 gr. strontium bromide, 3 p. m.

May 8th—Severe attack epilepsy, 11:45 p. m.

May 9th—3 tablets strontium bromide, 5 gr. each.

May 9th—Tenth injection of 1-200 gr. crotalin. Pain and swelling somewhat less severe than formerly.

May 9th—Severe attack at 3:30 p. m., another at 9 p. m., and a slight one at 10:15 p. m.

May 29th—Severe attack at 3:15 p. m. Took strontium bromide.

May 30th—Severe attack at 3:45 a. m.

Abstracts

Intestinal Stasis.

The treatment of intestinal stasis, commonly called constipation, is reviewed by W. A. Bastedo, New York (Jour. A. M. A., Aug. 29, 1914). The recognition of the fact that poisoning may result therefrom has, he says, made it the subject of renewed interest. It is not necessarily a condition of infrequent defecation; it may be even accompanied by diarrhoea or greatly relieved by a weekly cathartic. The measures of relief he suggests are habit formation of daily stools and prompt response to desire to defecate, exercise and massage, when done by some one with general anatomic knowledge and some knowledge as regards the general abdominal condition of the patient. It should not be done if there is any suspicion of duodenal ulcer, appendicitis or other inflammatory condition in the abdomen. Proper support of the abdominal walls and an inelastic support around the body from navel to symphysis should be applied the first thing in the morning and worn until bedtime in cases of intestinal stasis accompanying ptosis and weakness of the abdominal walls. In addition to this, any laxity in the pelvic floor should be attended to. So far as effects of diets on bowel movements are concerned, they might be classed according to the chemical substances they contain, such as sugars and fruit acids, by their structural parts, by unabsorbed oils and fats and the chemical irritation produced, etc. Simple undereating is a cause of constipation, and the same is true of too ready digestion; in either case the residue is insufficient. The various constituents of food, such as fibrous tissue, fats, acids and salts, are enumerated. A dry diet favors stasis, but

Bastedo reports the effects of an experiment of administering 8 ounces of water each hour in two normal cases and six cases of nephritis. In neither of these were the bowels specially affected, showing that large quantities of water do not act on the bowels. With a too dry diet, however, constipation is common. Of the medicinal agents which give bulk and soft consistency to the feces, the most commonly used are agar-agar, liquid paraffin and small, not expulsive, doses of the saline cathartics. As regards the liquid paraffin, it is sometimes inconvenient on account of its oily nature by the passing down as a free oil without mixing with the food contents, and sometimes it is not tolerated by the stomach. We do not yet know whether an unrefined article is harmful if used internally, but it is wiser, he thinks, to use the best. Saline cathartics should not be used in expulsive doses too often. Bastedo sums up the treatment of chronic intestinal stasis as follows: "Regularity of defecation, measures to improve intra-abdominal pressure, measures to increase peristaltic activity, and measures to increase the bulk and softness of the colon contents. In the average case attention to habits of life and to the amount and kind of food, and the administration of a softening agent or a very mild laxative will be effective in overcoming the stasis, and, therefore, the toxemia. In severe cases the addition of an oil enema at night may work a marvelous change for the better. In these chronic cases the drastic cathartics should be omitted from use. If measures such as those spoken of, when carried out thoroughly, do not overcome the stasis and the toxemia, the question of surgery should be seriously considered."

Celluloid Splints.

The use of celluloid splints in the treat-

ment of paralytic diseases, especially in the after treatment of acute poliomyelitis is strongly advocated by G. W. Robinson, Kansas City, Mo. (Journal A. M. A., Aug. 29, 1914). In his opinion the paralyzed limbs should be fixed in the normal position of rest and held in such a position by a splint which gives sufficient support to enable the patient to walk during the stage of repair, thus applying a physiologic stimulus to aid in the recovery of the muscle. All cases of paralyses of the legs are suitable for splinting, he says, except those with complete loss of power in the psoas and iliacus group and in the glutei; also those in which the back, lumbar and abdominal muscles are much affected. But if these alone are weak with little involvement of the legs, a spinal jacket is frequently helpful. The extent of the splint should vary with the extent of the paralysis. If the limb is extensively paralyzed the splint should encompass the entire leg as far as the tuber ischii behind, the trochanter on the outer side and the ramus of the pubes on the other. If limited to the muscles below the knee a splint reaching the knee will suffice. Splints are also convenient in some other conditions like tabes, hypertonia, Charcot's disease, etc. Robinson gives full directions for making the celluloid splints, especially the first taking of the negative cast. The celluloid splints should be worn next to the skin, as a stocking will force it out of place. It should be applied while the patient is still in bed, laccd on and worn day and night, but removed twice a day for massage and passive movements. The patient should be encouraged to get up and walk as soon as possible and this can be done in the average case at the end of the first month.

Appendicitis.

Archibald MacLaren, St. Paul (Journal A. M. A., Aug. 29, 1914), publishes the results of a study of 300 cases of acute suppurative appendicitis, with special reference to pelvic complications. He has been in the habit of noting the quantity of pus in every case, and he credits a decrease in the mortality of his later cases to rectal drainage, which he considers a life-saving measure. The case which first called his attention to the need of this was that of a boy who died complaining bitterly that the nurse was inattentive to his bowels. After death the sphincter was found dilated to an inch in diameter by the anterior wall of the rectum, pressed down by a large pelvic abscess. Since then MacLaren has not considered his examination in any inflammatory abdominal condition complete without examining the rectum. At first he used rectal puncture and drainage only in cases that had been operated on for acute appendicitis. The accumulation in the culdesac would generally show itself by night pain, high temperature and pulse, and beginning aseptic appearance about six days after operation. Many times it was found distended with pus, even with a large-sized rubber tube extending from the wound or from an anterior wall stab into the culdesac. Owing to adhesions pelvic abscesses do not always drain with the ordinary drainage method and septic absorption may go on with them throwing out a regular stream of pus. The following are his conclusions: "1. The successful treatment of acute appendicitis depends on the time when the patient can be operated on after perforation, the earlier the better. 2. We should continue to impress this fact on the laity. 3. Drainage must be complete and for a certain percentage of cases rectal drainage is a most efficient measure. 4. After

operation has been performed we must not forget these patients. The method of attack is not so important as eternal vigilance, constant watching and frequent rectal examinations, which should be made, if in the future we are to save some who would have been lost in the past."

Appendicitis.

J. E. Moore, Minneapolis (Journal A. M. A., Aug. 29, 1914), says the last word will not be spoken concerning appendicitis until it is no longer ever fatal. Little has been added to our methods of diagnosis. The average case is the easiest of all abdominal conditions to recognize, but there are exceptional cases that may puzzle the ablest diagnostician. The most common mistake is to make a diagnosis of appendicitis when it does not exist, but refinements in diagnosis should not be undertaken before operation because they may lead to disastrous delay. The prognosis is improved each year, but there is still room for more improvement. The present mortality rate is near 5 per cent, and with skilled hospital surgeons it is less. His rule has been, during the last few years, to operate as soon as the diagnosis is made, but he would not recommend this to the unskilled operator without hospital facilities. In the Minnesota University Hospital they have had eighty-seven patients with acute appendicitis operated on with a mortality of but 3.4 per cent. All the deaths occurred while they were occupying a frame building as a temporary hospital. With the last forty-four cases in the new hospital there have been no deaths. Christian Science is responsible for more deaths from appendicitis than are operations. Moore is positively opposed to the removal of the appendix in every case of appendicitis. He has removed the appendix in about 95 per cent of his

cases, but in a few cases, about one in twenty, it was better to leave it as safer than its removal. That it may call for another operation was unimportant compared to the danger to life. Patients should be operated on after an acute attack to avoid further attacks as a routine practice, and this should be insisted on in child-bearing women. Appendicitis in a pregnant woman is more than twice as dangerous, and two lives are liable to be sacrificed. The exact method of removal of the appendix and treating the stump is immaterial so long as it is skillfully done. In suppurative cases drainage is important and often improperly carried out. Moore's personal practice is never to use gauze for drainage unless it is surrounded by a rubber tube or rubber tissue, and then only for a few hours. Neither does he use the sitting posture for the patient after operation. Large-sized rubber tubes should be passed to the bottom of the pelvis, and they need not drain down hill, for the intra-abdominal pressure will care for that.

Anaphylaxis.

H. L. Underwood, La Grande, Ore., reports a case of very extensive burn as of interest partly because complete recovery followed in spite of its extent and systemic effects, and partly from the appearance of certain phenomena analogous, if not identical with anaphylaxis. The patient, a healthy man, aged 25, was burned from the explosion of a kerosene lamp, from his shoulder to his knee, over, as estimated, about one-half the surface of his body and largely to the third degree. Local treatment and stimulants as required were given and skin-grafting begun as early as the condition warranted, a number of persons contributing. The earlier grafts took readily and thrived but the later ones began to melt, as did also some

of the old grafts and the healing process stopped over still other surfaces. The patient's temperature rose irregularly. The urine became bloody. Egg grafts were next tried and at first took well. The first was applied to a burn in the groin and scarlet red was used to stimulate its taking. This was used in 8 per cent ointment with boric acid or dusted in powder on the grafts and wound margins with good effect throughout the rest of the treatment. A little later these grafts also failed as did also human grafts; only one very small one from the patient's mother thrrove. He therefore relied on scarlet red and the patient's own powers of epithelization. It was especially notable that the graft from the patient's sister did better than those from other persons at this time and the one from the mother thrrove perfectly. One practical lesson from the burn, Underwood says, would seem to be that scarlet red and stimulation of the epithelium are of prime importance in the treatment of burns. The patient was under his constant care for nine months and somewhat to his surprise made a perfect recovery without contractures or impaired motion, and with no appreciable scars.

Twelfth Annual Summary of Fourth of July Injuries.

For the twelfth consecutive year The Journal A. M. A., Aug. 29, 1914, in a special article gives its summary of deaths and injuries resulting from Fourth of July celebrations. Blanks sent out to hospitals, etc., for statistics were returned in many instances with the report that no cases were treated. The lessening of the cases of tetanus—three in 1914 as compared with 150 in 1909—encourages the hope that deaths from this needless cause will soon cease. The three tetanus patients were all under the age of 15. Cases oc-

curred in three states, no case being in a state which reported deaths from tetanus in 1909. The injury in two cases was from blank cartridges, in the third from gunshot. Reduction in cases of tetanus from other causes, due, doubtless, to the increased use of antitoxin, continues, sixteen cases being reported this year as against thirty-two in 1913. Thirty-seven deaths occurred from various forms of fireworks, a total of forty, eight more than in 1913, and ninety-one less than in 1910. The increase over last year possibly indicates a relaxation in the strict enforcement of the restrictions of last year. Sixteen persons, mostly small children, were burned to death from the supposedly harmless sparklers. Casualties this year were 1,506, an increase of 343 over 1913 and of 512 over 1912. Pennsylvania still leads with the largest number of casualties. Three persons totally lost their sight, thirteen lost one eye each, sixteen lost legs, arms or hands, and sixty-seven lost one or more fingers. Most of these injuries were due to the giant firecracker. Many injuries were caused by stray bullets from recklessly used firearms. Summaries and tabulations are given, by states, of deaths and casualties. The responsibility for these injuries, in the great majority of instances clearly rests with city governments, and it is their duty to decide whether this maiming and these deaths of children shall continue. The enforcement of restrictive ordinances is difficult and requires constant vigilance on the part of the police. Prohibitive ordinances are necessary. The increase in number of killed and injured is somewhat discouraging as indicating a relaxation of enforcement ordinances. The growing public interest in a safe and sane Fourth, however, is encouraging. The use of fireworks in Fourth of July celebrations should be strictly prohibited. Forty . r-

sons killed and 1,466 maimed and wounded is a poor way to show patriotism or thankfulness for the Declaration of Independence. The question is asked: Is riot and murder or rowdyism the only way in which we can show our patriotism? These evils can be done away with if city officials continue prohibitive measures.

The Radio-Activity of Saratoga Springs Water.—An estimate of the radio-activity of Saratoga Springs Water, made by the U. S. Bureau of Mines, shows that the activity is due in the main to radium emanation, which is therefore readily lost, and not to dissolved radium salts. The total activity of the waters is rather low, that of the Crystal Rock spring, though not exceptional, is considerably above the average. The activity of different springs varies widely, some being more than twenty times as active as others. A similar variability is known to exist at Hot Springs, Ark., but only the vaguest information has been made public by our government. (Jour. A. M. A., Aug. 29, 1914, p. 788 and 795.)

Radium in Cancer.—Radium can be used successfully to destroy growths on the surface whose entire extent can be exposed to its energy. Extensive growths involving deep structures and disseminated growths are beyond its control, and there is no reason to believe that they will ever be brought within its control. The effects and the limitations of radium in the treatment of cancer are the same as those of the Roentgen ray. (Jour. A. M. A., Aug. 29, 1914, p. 787.)

Pertussis Vaccine.—The Bordet-Gengou bacillus is recognized as the cause of whooping cough and a vaccine prepared from it is used with success, although it is the general experience that when a child is already in the stage of incubation, the

vaccine will not prevent the development of the disease. (Jour. A. M. A., Aug. 29, 1914, p. 796.)

Scarlatina Vaccine.—The so-called scarlatina vaccine is said to consist of killed streptococci from scarlet fever cases. While the infectious agent of scarlet fever has not been established, the close association of streptococcus with scarlet fever has been considered a warrant for the use of antistreptococcus serum, and various vaccines prepared from this organism, in the treatment of scarlet fever. (Jour. A. M. A., Aug. 29, 1914, p. 796.)

New and Nonofficial Remedies.

Since publication of New and Nonofficial Remedies, 1914 and of the supplement to New and Nonofficial Remedies, 1914 (July 1, 1914), the following articles have been accepted for inclusion with "N. N. R."

Antiseptic Supply Co.—Styptic Applicators, Alum 75 per cent.

Arlington Chemical Co.—Arleo Urease.

Fougera and Co.—Electrargol for Injection, 10 Cc. Ampules.

Hynson, Westcott and Co.—Urease-Dunning.

H. K. Mulford Co.—Hypodermic Tablets of Emetine Hydrochloride.

Waukesha Health Products Co.—Hepco Flour; Hepco Dodgers; Hepco Grits.

E. Fougera and Co.—Electrargol. At the request of the manufacturer, Comar and Co., Paris, the Council has recognized E. Fougera and Co., New York, as the American selling agents for the product. Also in view of information received from Comar and Co. it has modified the New and Nonofficial Remedies description for Electrargol to indicate that this product now contains the equivalent of .4 per cent of metallic silver.

W. A. PUCKNER, Secretary,
Council on Pharmacy and Chemistry.

Propaganda for Reform.

Administration of Fruit Acids.—The administration of the salts of the ordinary fruit acids is useful whenever it is desired to increase the alkalinity of the blood and diminish the acidity of the urine. Important investigations indicate, however, that it is scarcely feasible to produce any very marked effect on the alkalinity of the blood in this manner. If the physician believes that the alkalinity of the blood is an important factor in the recovery from gout and rheumatism, the administration of the salts of fruit acids is appropriate. Citrates should be preferred to tartrates, for the latter are imperfectly converted to carbonates and, when given in large quantities, may cause irritation of the kidneys. (Jour. A. M. A., Aug. 1, 1914, p. 420.)

Veracolate, Marcy and Co.—Veracolate is a proprietary said to consist of the salts of the bile acids, sodium glycocholate and sodium taurocholate, with cascara and phenolphthalein. While bile salts are said to increase the secretion of bile, it is doubtful whether this increase in the secretion of bile is of value in the treatment of gall-bladder affections. There is no occasion for the use of bile salts combined with fixed quantities of cathartics, which should be added only when they are needed. The advertising claims for Veracolate show a tendency to extravagant statements. (Jour. A. M. A., Aug. 1, 1914, p. 420.)

Hectine.—Hectine, referred to in newspapers as a treatment for hay-fever, is a French proprietary, stated to have a composition similar to that of atoxyl. If its composition is in accordance with the claims its action probably is no better than that of atoxyl. Arsenic is used in the treatment of hay-fever with success in some cases. (Jour. A. M. A., Aug. 8,

1914, p. 502.)

Toxicity of Camphor.—A case is reported in which an 18 month old child was given, after a meal, a teaspoonful of camphorated oil (*linimentum camphorae*) by mistake. While this dose must have contained about 15 grains of camphor, no untoward symptoms were observed. (Jour. A. M. A., Aug. 15, 1914, p. 579.)

Assimilation of Calcium Phosphate.—Extensive experiments have demonstrated the availability of calcium phosphate for the bone formation of growing infants. This is a further proof of the power of the human organism to utilize inorganic substances. (Jour. A. M. A., Aug. 15, 1914, p. 581.)

Poisoning by Boric Acid Dressing.—While wet boric acid dressings are harmless, this is not true of dry, powdered or crystallized, boric acid. Alarming symptoms resulted from the application of dry boric acid to wounds caused by a burn. (Jour. A. M. A., Aug. 15, 1914, p. 593.)

PoDoLax.—A report from the A. M. A. Chemical Laboratory shows that PoDoLax, claimed to be "Podophyllin with the Grip taken out," is a phenolphthalein nostrum. PoDoLax is being extensively advertised by the E. E. Sutherland Medicine Company of Paducah, Ky. From the analysis made, it appears that PoDoLax is an aromatized syrup, containing phenolphthalein in suspension and fortified by the addition of an extract of senna. Its laxative action is due chiefly to the phenolphthalein of which each dose contains about 1.8 gran. Podophyllin was not found to be present. (Jour. A. M. A., Aug. 15, 1914, p. 595.)

Shortage of Drugs.—In view of possible drug shortage, physicians should bear in mind that many proprietary foreign preparations are made and sold in the United States under their descriptive names, thus dionin as ethyl morphin hydrochlorid, uro-

tropin as hexamethylenamin and Diuretin as theobromin sodium salicylate. (Jour. A. M. A., Aug. 22, 1914, p. 692.)

Placenta Praevia.

The treatment of placenta praevia is the subject of an article by E. P. Davis, Philadelphia (Journal A. M. A., July 25, 1914), who says that it is an accident that causes hemorrhage and infection, and demands hospital facilities and experienced operators. Logically, he says, it is a variety of ectopic gestation, and as regards infection it is usually more dangerous than the condition ordinarily so called. Any vaginal hemorrhage in a pregnant woman is a warning of danger, too frequently neglected because it is often painless and the dangers of infection must be kept in view. Manipulation and vaginal examination and the use of the tampon should be avoided as far as possible. One classification of these cases is those where the os is not entirely covered with placenta and those where it is. In the hands of the general practitioner and in private houses the best treatment in the first class of cases is to rupture the membranes as extensively as possible when dilatation permits, and to give the patient tonic doses of strychnin and allow her to deliver herself, or at least to try to, before artificial delivery is attempted. In complete placenta praevia in the hands of a general practitioner in a private house, the Prutton-Hicks method of bringing down the leg and breach of the child would give the mother the best chance. Anesthesia may be required. The placenta must be perforated by one or two fingers, combined version performed and the leg seized and drawn through the placenta. Under no circumstances should forcible or complete extraction be attempted, but a noose

or bandage may be slipped around the child's ankle and a moderate weight attached if constant tension is desirable. The mother may then be stimulated as required, ergot and pituitary extract being avoided. Constant observation is demanded until labor finally develops and the fetus, if possible, is expelled spontaneously. Post-partum bleeding must be watched for and, following the delivery of the placenta, the uterus irrigated with hot 1 per cent. dilution of liquor cresolisi of salt solution and the uterus, vagina and cervix firmly packed with 10 per cent iodoform gauze. In hospital practice, with the mother in good condition and the membranes available for rupture, a dilating bag may be introduced and gradually distended, thus securing dilatation of the cervix and pressure on the placenta. With membranes unavailable and cervix resisting, prompt abdominal section will give best results for mother and child. Davis' experience with this comprises sixteen cases. "The method of operation consisted in opening the abdomen, turning out the uterus, incising it and immediately removing its contents. It was interesting to observe how completely hemorrhage ceased when the uterus was emptied. The uterine cavity was then thoroughly irrigated with hot sterile salt solution and packed firmly with 10 per cent iodoform gauze carried through the cervix into the vagina. The uterus and abdomen were closed in the usual manner. The vagina was sponged out with mercuric chlorid solution and firmly tamponed with sterile or mercuric chlorid gauze. During the operation the patient received intravenous saline transfusion, and strychnin, digitalin and atropin were given hypodermically." All the mothers recovered and six of the children.

Abuse of Normal Salt Solution.

L. Litchfield, Pittsburgh (Journal A. M. A., July 25, 1914), protests against the too free use of normal salt solution, and gives case-reports supporting his contention. He holds that the administration of any artificial serum as a routine postoperative practice is questionable therapeutics. Too much water may fatally embarrass the heart as well as too much salt may the kidneys. When fluids cannot be taken by the mouth, thirst can be relieved by tap water or by isotonic dextrose solution given by enteroclysis. The dextrose solution is preferable in cases of threatening acidosis or inanition. When an addition to the blood stream is positively indicated, this is best accomplished by dextrose solution: "isotonic (5.1 per cent.) by enteroclysis; isotonic, hypertonic (up to 30 per cent.), or hypotonic (2 per cent.), by intravenous infusion." There are no contra-indications for the use of dextrose, but often serious ones for the use of saline solution. In urgent cases the intravenous method is best, and greater care should be used to see that all water intravenously introduced is not only sterile, but also non-toxic. "In medical practice artificial serums should be more frequently employed: (1) isotonic or hypotonic (a) after severe hemorrhage, exhaustive vomiting or diarrhea; or (b) in cases of extreme inanition; (2) hypertonic (c) in toxemic cases, including eclampsia and uremia; (d) in cases of oliguria with threatened uremia; (e) to combat acidosis, or (f) in toxic states, as after anesthetics, gas, morphin poisoning, etc." Litchfield condemns Dr. Fischer's theory of nephritis as a gratuitous hypothesis, and says his recommendations for treatment are not justified by physiologic facts or clinical experience.

Mixed Vaccine and Phylacogens.—The unscientific character of mixed vaccines

the mixed filtered products of a number of vaccines marketed as "Phylacogens" has been especially emphasized and the danger from their indiscriminate use been pointed out. Recently John F. Anderson held that the claim that the combination of dead bodies or the filtered products of a number of different bacteria are useful for the treatment of certain diseases with a specific cause, closely approaches quackery. Victor C. Vaughan also has pointed out the danger of the indiscriminate use of bacterial products and observed that untoward results are rarely reported. Physicians who are tempted by the optimistic statements of manufacturers to give complex bacterial products a trial, should remember that the warnings of disinterested scientists are of far more value than uncritical clinical reports put out under commercial auspices. (Jour. A. M. A., Aug. 29, 1914, p. 785.)

Book Reviews

The Clinics of John B. Murphy, M. D.

The Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago. Volume III, Number III. Octavo of 215 pages, 54 illustrations. Philadelphia and London: W. B. Saunders Company, 1914. Published Bi-Monthly. Price per year: Paper, \$8.00; Cloth, \$12.00.

Doctor Murphy gives a most practical lecture in the June number of the Clinics. Skill in diagnosis and prognosis is shown to be necessary for professional success. In addition to this excellent lecture there is the usual number of good things in the way of surgical cases and practical points in diagnosis. Doctor Murphy's wonderful skill as a surgeon and as a teacher shows on every page.

A Treatise on Clinical Medicine.

A Treatise on Clinical Medicine. By William Hanna Thomson, M. D., LL. D., formerly Professor of Practice of Medicine and of Diseases of the Nervous System in the New York University Medical College; Ex-President of the New York Academy of Medicine, etc. Octavo volume of 667 pages. Philadelphia and London, W. B. Saunders Company, 1914. Cloth, \$5.00. Half Morocco, \$6.50.

That Thomson's Clinical Medicine will become a favorite among the medical men is our prediction. The book is unique in its conception and is indeed a Clinical Medicine. Doctor Thomson has a most pleasing style and is able to bring out his points in a charming way. There is a most commendable absence of polemic discussion, the author going by the most direct route to the center of the subject under consideration, basing his views on his clinical experience after years of study with abundance of clinical material at his command. We advise our readers to place Thomson's Clinical Medicine on their lists for early purchase.

We have received from Messrs. Parke, Davis and Company's research laboratory a copy of their collected papers detailing the results of the research work carried on in their laboratory. The book contains many articles of interest and value which cover a wide range of subjects.

We acknowledge receipt of Volume II of the Medical and Surgical Reports of the Episcopal Hospital of Philadelphia. This volume, like its predecessor, contains many articles of unusual interest and is well illustrated. We commend the publication of such reports for they do much to

help in the advancement of medical science.

The Practice of Surgery.

The Practice of Surgery. By James G. Mumford, M. D., Lecturer on Surgery in Harvard University. Second Edition. Thoroughly Revised. Octavo volume of 1032 pages with 683 illustrations. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$7.00. Half Morocco, \$8.50.

The second edition of Mumford's Surgery comes to us thoroughly revised. The excellent standard established by the first volume is in no wise departed from and the new edition will meet with all the favorable comments of the former volume, as it most justly deserves them.

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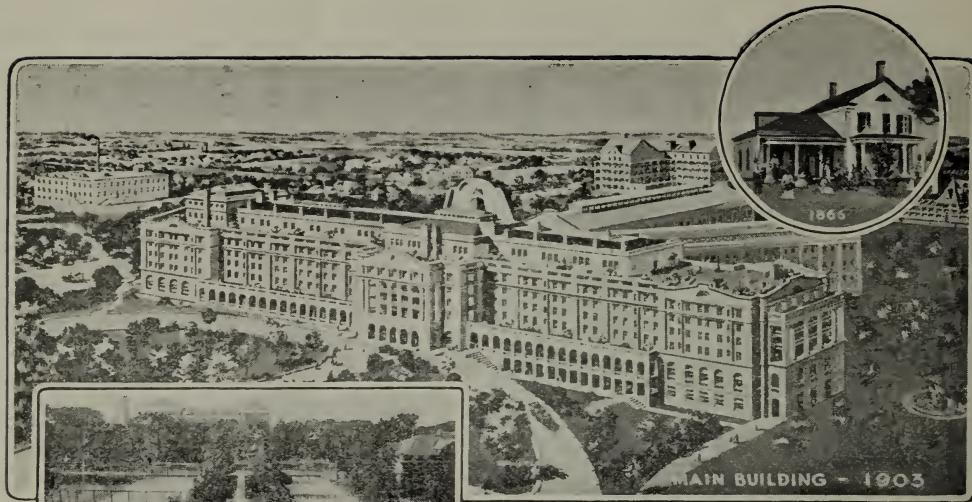
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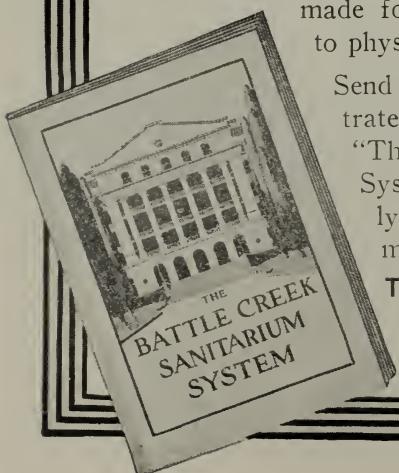
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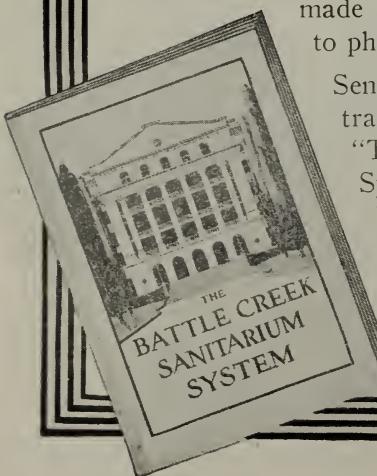
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